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THE BICYCLING WORLD and MOTORCYCLE REVIEW

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U S Patent Office of Interior

Incorporating THE WHEEL, the AMERICAN CYCLIST and the MOTORCYCLE MAGAZINE.

Vol. LIV
No. 1

New York, N. Y., Saturday, September 29, 1906.

\$2.00 a Year
10 Cents a Copy

In the F. A. M. National Endurance Contest

last July—that memorable 400 miles journey from New York to Buffalo through mud and slush and a Niagara of rain—12 Indians started. Only 11 of the 34 starters “survived” the trying ordeal and of the 11 but 6 obtained perfect scores. Of the 6, five were Indians; of the other 5, two were Indians. “There were so many Indians it is not surprising they made such a fine showing,” was the remark that followed. Well, in the

Chicago Motorcycle Club's Endurance Contest

on the 14th and 15th inst.—a 300 miles test—only one (1) Indian started. It “got there,” of course, and with a perfect score.

It was the same in the Brooklyn Motorcycle Club's open economy test last fall. Indians finished in one, two, three four order. Then this summer the New York Motorcycle Club held a similar test. But one Indian competed. It won, and easily. It went four miles further with one pint of gasoline than its nearest competitor.

It has been the same story in all the hill-climbing contests that have been held this year—Indians first.

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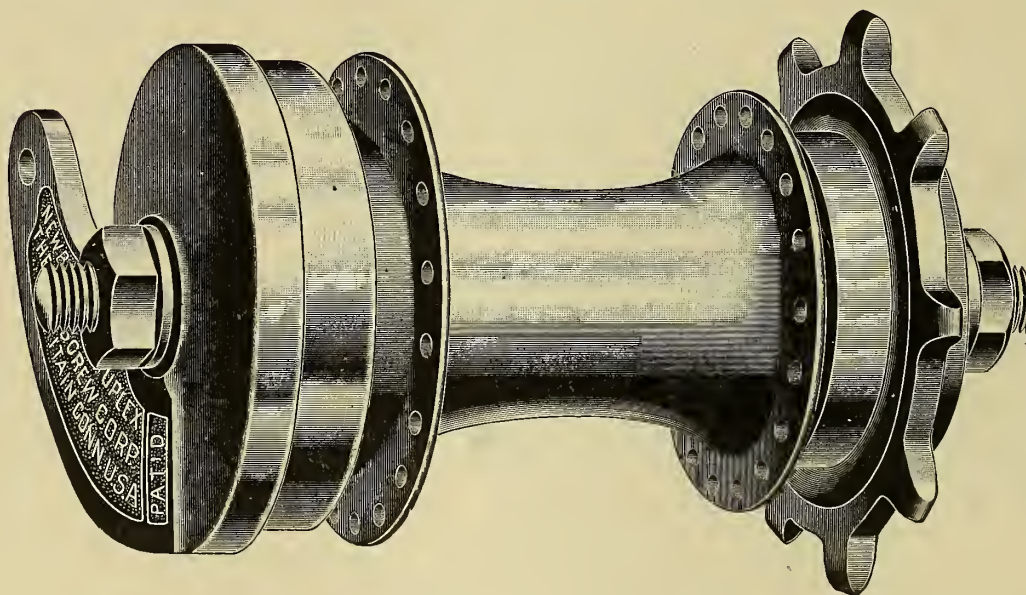
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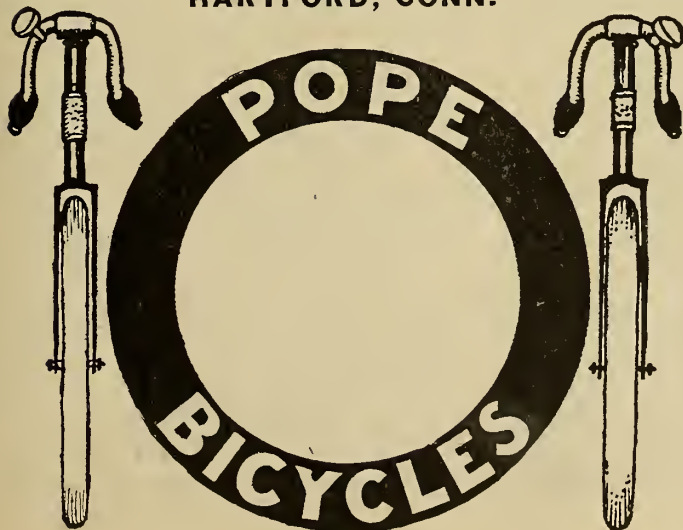
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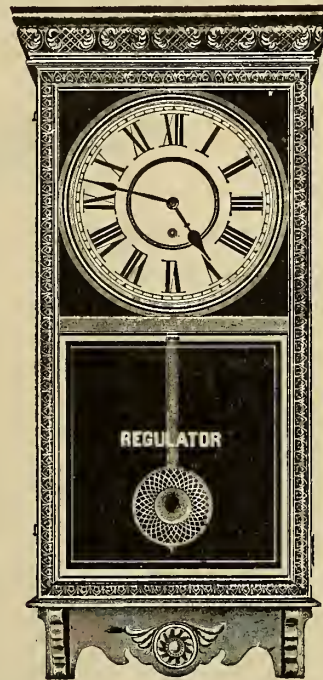
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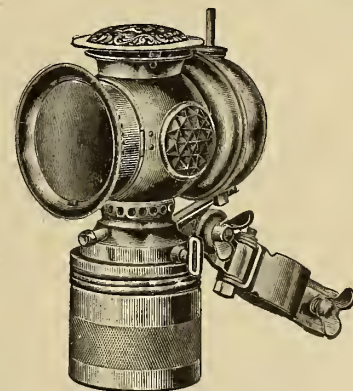


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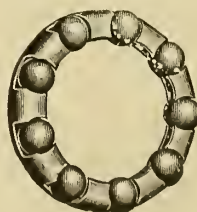
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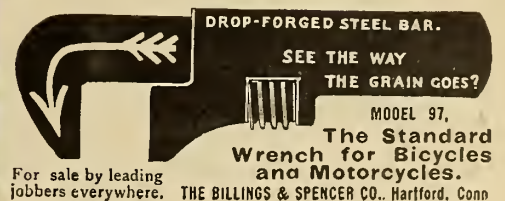


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THE BICYCLING WORLD and MOTORCYCLE REVIEW

FOUNDED 1877

Volume LIV.

New York, U. S. A., Saturday, September 29, 1906

No. 1

COPELAND LOSES A POINT

Patent Office Denies His Appeal in Coaster-Brake Case—Was Filed too Late and Excuse is Insufficient.

Because his attorney was "too busy with other matters," J. S. Copeland, who stands for the Pope Mfg. Co., has lost a point in the fight for the coaster-brake patent in which for so many years he has been engaged with H. P. Townsend (New Departure) and William Robinson (Morrow). Copeland's motion was made more than seven months after the time fixed by the Patent Office regulations and was denied by the Examiner of Interferences. He then appealed to Commissioner Allen who, however, has upheld the Examiner in the following decision which explains the points involved and which has just been made public:

"This is an appeal from the decision of the Examiner of Interferences refusing to transmit Copeland's motion to dissolve the interference on the ground that the claims in issue are not patentable and that the party Robinson has no right to make them. The transmission of the motion is not opposed by Townsend.

Robinson has brought a motion to dismiss this appeal, which is denied, for the reason that the appeal was properly taken under the rules governing the practice of this office.

"The Examiner of Interferences refused to transmit the motion to dissolve on the ground that it was brought more than seven months after the time fixed by the rules and that the excuse, which was in substance that the attorney for the moving party was so busy with other business matters that he could not sooner bring the motion, was insufficient to account for the long delay. In this holding the Examiner was right. It was urged that even though the showing in itself may be regarded as insufficient the motion should nevertheless

be transmitted in view of the facts that no testimony has yet been taken and that there is a motion to amend now pending before the Examiner which has not yet come on for hearing. Appellant contends that under these circumstances the transmission of the motion will not be attended by delay to the opposing party and the usual reasons for refusal to transmit do not apply. The contention is unsound. There is no reason to believe that proceedings upon the motion for dissolution, if transmitted, would terminate with those upon the motion to amend, nor is the fact controlling that testimony has or has not been taken. The provision of Rule 122 requiring motions to be brought, if possible, within a time fixed, is conducive to orderly procedure and must be enforced.

"The decision of the Examiner of Interferences is affirmed."

England's Exports Become Boomlike.

August proved another great month for England in the matter of cycle exports, being, indeed, not only the best August since the boom period of 1896, but the best month since July, 1897. During the month there were exported 9,975 complete bicycles, valued at £52,572, and parts to the value of £57,670, a total of £110,242 or about \$550,000. In August of last year the total was £82,860, and in August, 1904, but £58,044. For the eight months of the year, the combined exports of cycles and parts reached a valuation of £784,741, of which £284,460 represents 50,986 complete machines. The remainder, £500,281, stands for parts. For the corresponding period of 1905, the total was £608,153 and for 1904, £487,256.

The White Light of Virginia.

The White Light Bicycle Company, Norfolk, Va., was incorporated last week under the laws of that State. C. H. White is named as president, D. S. Alston, treasurer, and Edward Reid, vice-president, all of Norfolk, Va. The capital is \$25,000,

SCARCITY OF RAW MATERIAL

It has Proved and is Proving More Embarrassing than Generally Supposed—Handle Bar as an Instance.

Although not much has been said about it, it is true, nevertheless, that even the cycle trade has felt the effects—and it is still feeling them—of the condition of the metal market, due to the enormous demand for irons and steels of practically all sorts. It has caused such a stringency that not a few manufacturers have been considerably embarrassed and, what is as bad, there is little, if any relief in sight. The situation that exists was perhaps best described a few days since by F. J. Waters, of the Chicago Handlebar Co.

"We've had a new handle bar under way for nearly a year," he said, "and confidently expected to have it on the market early this spring. In time to assure it, we placed orders for the necessary tubing and castings, each with a different concern and—well, the long and the short of it is that we are waiting for the tubing and the castings yet and I suppose we will consider ourselves lucky if we are able to put out the new bar in time for the 1907 trade."

Morgan & Wright are Moving.

Morgan & Wright are now engaged in removing from Chicago to their new home in Detroit; they will be settled in the latter place by October 1st and thereafter, of course, Detroit will be their address. The new plant in the Michigan metropolis, of which they are taking possession, was built and equipped specially for their needs and it goes almost without the saying that it is about the most modern rubber mill in the universe. It covers an area of seven acres, the main building being of four stories, 300x60 feet, and the equipment being in keeping with the splendid structure itself,

CASE-HARDENING OF METALS

Although Simple, the Processes Employed are Little Understood—How the Work is Done and the Materials Used.

While the general processes of converting raw materials into the finished components of the bicycle and motorcycle are pretty generally understood by the man in the street, it doubtless is a fact that the evolution of the basic elements themselves is more or less shrouded in mystery. Steel is steel, iron is iron, and, generally speaking, their specific differences are recognized only by their properties rather than by the constitutional peculiarities which differentiate them from one another. But whatever may be the average understanding of the relation between the principle materials of construction, the half-way product known as case-hardened iron or steel, frequent though its application may be, is probably less understood by the user than either the iron or steel in their elementary structure. Yet the methods by which it is obtained are among the simplest known to the exact science of metallurgy, and the structure is one easily comprehensible.

Case-hardening, as the term in itself implies, means the formation of a hardened surface on otherwise soft metal, and the term is used more generally in regard to iron and steel, although to some extent a form of case-hardening can be applied to copper and some of the bronzes having a high fusing temperature.

Ordinary wrought iron, mild steel, and malleable cast-iron will case-harden well, the last being the least satisfactory, but still for some purposes being very successful. Ordinary cast-iron, if treated by the case-hardening process, would rather be softened, owing to its then being annealed with an excess of carbon, part of which would be absorbed.

In some cases only part of an article can be case-hardened, while the other parts are left soft; and although this may involve some trouble, yet for particular purposes the results are worth all the trouble taken.

When iron or steel is case-hardened, the articles are packed in annealing boxes with animal carbon, and the boxes are covered and the joints luted, or sealed with damp fire-clay, then heated to just that temperature at which absorption of carbon takes place. The time the heat is continued depends on the depth of hardening required, and usually the work is thrown into water and made dead hard as soon as it is considered that a sufficient depth is penetrated by the carbon. With the carbon may be used chemicals to assist in its absorption, cyanides being very frequently used, and according to the skill and practice of individual operators success is secured.

Especially constructed boxes are used, having small holes pierced in the covers for the insertion of test wires, these being

used to ascertain the state of the heat and the penetration of the carbon. Both circular and rectangular boxes are used and both forms have their special uses according to the articles to be hardened; but rectangular boxes usually heat most regularly.

The packing may be of bone or leather cuttings, and these may be used raw or after conversion into charcoal. A layer of the carbonized material is laid in the bottom of the box, and then a layer of the articles to be hardened is put in and packed with carbon, and the process is repeated until the box is full. Powdered potassium cyanide or prussiate of potash may be dusted over and among the articles and packing; but in all cases phosphorous-bearing materials are avoided, there being quite enough of this in the carbonaceous matters used. When the box is filled, a layer of the packing material is put over the articles, the box closed, and the cover luted down, the test wires being inserted at the same time. Care must always be taken that the packing is thoroughly dry, otherwise the steam will force the luting, or in some cases force off the cover; in such cases the results not being extremely satisfactory. In packing articles which have only to be case-hardened in parts, the soft portions have a protective covering; while the parts to be made hard are left exposed. For ordinary purposes a mixture of white ash from the boxes and enough fire-clay or pipe-clay to bind the ashes, is as good a mixture as can readily be made to save the soft parts from the carbonaceous packing; but usually each operator has his own especial mixture for the purpose.

When the boxes are ready they must be placed in an oven in such a way as to allow the heat to circulate all around them, and when raised to the necessary heat, they must be kept steadily at that heat until it is judged that the necessary depth of hardening is secured. Small variations of heat will affect the results obtained, and it is safe to say that hardly any two ovens or operators give exactly the same result in a given time. Differences in the packing material also cause some differences in the speed of the penetration of the hardenings.

After being placed in the oven, the boxes are raised to the required heat steadily and quickly, and the heat tested from time to time by means of the test wires. The progress of the hardening can also be tested if the wires are of steel, and are quenched in cold water on withdrawal from the boxes. On breaking the wires so treated, the depth of the hardening can be readily ascertained; but this necessarily only refers to a moderate depth of hardening. Large articles to be deeply hardened can only be worked by time, the effect being noted in practical working. Some articles frequently require packing and firing more than once.

When the boxes are opened, the usual thing is to dump the whole of the contents into water and then to extract the hardened articles when they are practically cold,

when they should be almost glass-hard on the surface. In some cases running water is used, and various additions are made in other cases—solutions of salt, cyanide, prussiates, and other things being used; the chief apparent object being to increase the coldness of the water, the effects of the chemicals on the metal being nearly, if not quite ignored. Some things, and particularly the cyanides of potassium or potassium and iron, appear to affect the iron and steel more than is generally thought, greatly increasing the hardness of a thin layer on the surface of the metal, and for this reason should always be used with some articles; but where tempering is to be done, their use is not necessary.

After the articles are cooled off they are dried and thoroughly brushed with wire brushes to leave them clean; and if to be tempered, the surfaces are brightened. Any fine grinding is done before tempering; but the final polish only after the whole of the fire work has been performed.

Uses of the Oil Gun.

To the man who takes pleasure in caring for his own machine, an oil gun such as is commonly used by automobilists will be found a handy addition to the assortment of tools of which his workshop boasts. These are nothing more or less than brass syringes and are now made in a great variety of forms and sizes. One with a four-inch barrel is large enough and will be found convenient for squirting oil or gasoline into places otherwise hard to reach. They will be found an aid in more ways than one and can be had in sizes sufficiently small to permit of their being included in the tool kit of the machine, though they are not frequently called for there.

When One Cylinder Goes Lame.

In the case of a twin-cylinder machine one cylinder of which refuses to fire under the best persuasion, it is possible to run on the other, by disconnecting the high tension ignition wire from the proper plug and "earthing" it, and also blocking up the inlet valve in some manner so that it shall not be affected by the suction in the lame member, and a fairly effective single cylinder mount is the result. Fortunately, the occasions when such a method is required are scarce, yet is it well to know what to do when they arise.

To Make Motor Quads in Michigan.

The Quadricycle Co., Detroit, Mich., has been incorporated under the laws of that State and purposes manufacturing a four-wheeled motorcycle of some sort. The company has an authorized capital stock of \$10,000, of which amount \$6,100 has been subscribed, \$100 being paid in cash and \$6,000 in property.

"Motorcycles and How to Manage Them." Price, 50 cents. The Bicycling World Co., 154 Nassau Street, New York City.

SPRINGS IN UNUSUAL PLACES

Mr. Yooll Attacks Vibration from New Points and Perhaps You'll Like His Devices or Perhaps Not.

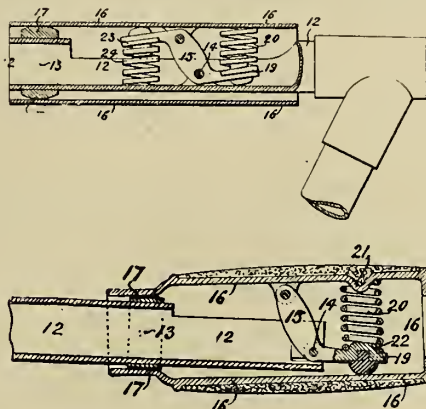
Well-nigh innumerable as are the devices intended to absorb the vibration due to the road stresses upon the cycle frame, there yet seems to be no practical limit to the number of variations which can be produced without serious interference in principle. The yielding frame, the cushion frame, and the many forms of spring forks and seat posts which already are on the market, seem to cover the ground pretty thoroughly. "There is always room for one more," however, and the one in this case is a Briton by the holiday name of Yooll, who has just covered his idea by patents.

The principle of the thing, which is applicable alike to seat post or handle bar grips, consists in mounting outside the main tube a sleeve hinged at one point and retained in a normal midway position somewhere near its centre by means of pivoted bars or yokes, held in place by helical springs. By this means, whatever of flexibility is obtained in the device is not in any way at the expense of a loss of rigidity in any of the vital parts, such as the forks or the main frame, and also—which in itself is something of a consideration—the arrangement is applicable to any existing type of machine, be it pedal or engine driven. Moreover, it is adaptable to machines without alteration other than the substitution of a new seat post and grip devices.

The manner in which the small amount of mechanism employed is disposed, will be seen from the accompanying sectional illustrations. A part of the end of the handle bar or seat pillar having been removed, and the remainder flattened somewhat, as at 12, a pin 14, is inserted, carrying the arm, 15, the other end of which is pivoted to the outer shell, as shown. The lower end of the arm is extended and shaped to engage a spring, 20, the upper end of which is held in place at 21, by an indentation in the shell. A rubber buffer to deaden the shock is placed below the point 19, and a friction ring, 17, is pivoted to the shell at the point 13, and is adapted to slide upon the end of the bar proper, the arrangement of the rivets being such as to allow for a certain amount of angular movement with relation to the bar and ring. Thus at once a rocking motion of the shell upon the bar is obtained and also a hinging action, the combination of the two sufficing to give all the freedom required to absorb any sort of shock.

In the greater number of shock absorbing devices on the market, the only provision is against vertical vibration. Yet it is only too evident to the experienced rider that not all the shocks imparted to

the wheels and through them to the frame and the rider are of this nature. The perfect cushion is, theoretically, sensitive to an equal extent in all directions, and this objective is a good one to work toward. How successful the inventor has been in attaining his end in this particular case is less to the point, since he has opened a door. The effort is a praiseworthy one, and



the initiative a good one to follow. For it is evident that the value of any cushioning device depends not simply on its success as a cushion, but also on the degree to which it interferes with the absolute rigidity of the cycle.

"Left Over" Sign did not Absolve.

It is customary with most repairmen to post notices in their places of business that articles left for repair which are not called for within a certain time will be sold. This is all very well so far as it goes for the owner who displays so little interest in his or her property as not to call for it within the time specified seldom calls thereafter. But a repairman who had the usual placard posted on his wall took it literally recently. A young woman had left her machine to be repaired in December and she had not called for it in May, so he disposed of it. Then she called for it and when it was not forthcoming had him haled before a magistrate, who promptly gave the lady a verdict for the full value of the bicycle and damages for its detention, as the repairman was unable to satisfactorily establish the fact that he had given due and sufficient notice of his intention to sell it.

Variation of the Float Level.

It is astonishing to discover for the first time how much a variation of even an almost imperceptible degree in the level of the fuel in the float chamber will affect the running of the motor. Provided the float is air-tight, the needle-valve well ground in, and the suction and supply fairly uniform, there is likely to be little alteration in the level of the supply chamber. Unfortunately, however, these are all quantities of more or less variability, or at least, are susceptible to sudden and unlooked for changes, and hence the level is not infrequently found to vary.

STRENGTH OF WIRE WHEELS

But Because They are so Strong is no Reason for Neglecting Broken Spokes—Accidents that are Invited.

Few cyclists realize the marvelous strength of the modern wire spoke wheel, and those who do, take advantage of their knowledge to impose upon the wheel a far greater strain than it was ever intended to bear. A spoke breaks and drops out—"one doesn't matter" is the philosophical manner in which the careless cyclist regards the matter. Then another defaults and if it be on the opposite side of the circumference, it will doubtless be regarded as offsetting the gap made by the first delinquent. It is nothing unusual to find bicycles that are ridden daily with spokes missing here and there from both front and rear wheels, one instance where a would-be road sprinter was proud of the fact that his mount lacked no less than eight of having the proper complement of spokes—three from the driver and five from the front.

It should be borne in mind that the rim is under tension at every point that a spoke enters it and it is only this uniform pull from both sides around the entire circumference that tends to keep it true. The moment a spoke defaults the rim begins to sag imperceptibly at that point toward the side which is pulled as there is no longer anything to counteract it. And every additional strain, such as striking stones, pulling out of ruts and the like, tends to aggravate it so that in a short time the wheel wobbles. Apart from this phase of the subject, it is well to remember that such a wheel is dangerous and that it is weak and is apt to collapse unexpectedly although apparently as strong as ever—if looked at from the side. This practice of neglecting to replace spokes as they default is certainly bad enough where the bicycle is concerned, but in the case of the motorcycle it is something that should not be indulged in for a moment longer than is absolutely necessary to have the delinquent member replaced.

If the Valves Weaken.

After considerable service, the strength of the valve springs in a motor tend to become lessened through the combined effects of continual rapid use, and the intense heat to which they are subjected. When possible, those which are seriously affected in this way should be exchanged for new ones, their after service as "spares" in no way being impaired by the fact that they are weakened, since they are intended only for emergency use. Where a renewal is not deemed advisable for any reason, it is possible to improve them by stretching or even by cutting out a coil or two and reshaping the shortened end.

A Demonstration of Our Claims of Durability of the National

A few days ago we received from one of our old customers a National, which he had sold in 1896, and which had been in continuous service ever since.

He sent it to us as a sample of National durability.

After it had been ridden over 17,000 miles, its owner decided to try for the 300 and 400 mile records, and succeeded in breaking both of them.

This bicycle has been ridden over 50,000 miles and contains the bearings which were sent out in it originally.

The cups and cones to-day are as bright and free from blemish as when new.

It's good for another 50,000 miles, but we will keep it as tangible evidence of results from using good materials.

There are thousands of Nationals just like this one.

Nationals to-day are made from the same quality of materials.

We have always been believers in good bicycles, and as every machine we make carries our trade mark, we cannot afford to cheapen their construction.

Are YOU Riding or Selling a Bicycle of the Sort?

NATIONAL CYCLE MANUFACTURING COMPANY
BAY CITY, MICH., U. S. A.

Comfort Resiliency

and 45 per cent. Saving in Tire Maintenance are the essentials
of the ever reliable

Fisk Bicycle or Motorcycle Tires

Like all Fisk products, they have a Quality and a Construction that is exclusive—real merit—through and through—that makes their distinct superiority apparent.

WILL OUT-LAST TWO OR THREE OF OTHER MAKES

THE FISK RUBBER CO., Chicopee Falls, Mass.

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To Facilitate Matters Our Patrons Should
Address us at P. O. Box 649.

NEW YORK, SEPTEMBER 29, 1906.

Cycling as a Hobby.

"Blessed be the man who has a hobby," say expert alienists, and a well-known physician who has made the study of the mental characteristics of the rest of his fellows and of mankind generally a specialty for many years, adds: "If it only be bugs and he is sufficiently interested in catching them and impaling them on pins to get up at midnight to find a new species, he is that much better off." The man of leisure who leads an utterly aimless existence is a sorry creature and his fellow who is so engrossed in business that he works at it all day and dreams of it all night is not much better off.

And what—of all the multitudinous pastimes that find a place in this category—is more entertaining and at the same time more health-giving than cycling? The men and women who overdid it as a pastime a number of years ago, and their name was legion, frequently sigh for the pleasant recreation afforded by a day's spin along quiet country roads, and let it go at that. But those who have stuck to the bicycle through thick and thin now get as much enjoyment and pleasure out of its use as they ever did and are that much better for it. They are the ones who took up the bicycle as a hobby and not

merely as the passing fashion of the moment, to be dropped as soon as the first keen edge of the novelty had been worn off.

As a hobby, cycling has the prime advantage of not preëmpting all one's leisure time to the exclusion of other pastimes—it is, in fact, frequently the stepping stone to other recreation. The man who makes photography his hobby may do likewise with the bicycle to the benefit of both. And the same thing applies to the man or woman who is a keen botanist or "bugologist"; for what lends itself so readily to the needs of one who desires to roam afield with a minimum of impedimenta as the bicycle? And so it is with many others; there are few that cannot be profitably combined with devotion to the silent steed which, in the end, will be found superior to them all.

The Use of Larger Tires.

Every once in so often the advantages of larger tires than those in general use—that is to say, the superior comfort of such tires, have occupied the "center of the stage." Considerable argument has resulted, but in nearly every instance the cyclist who, though the local agent or otherwise, has sought to have, say 1¾-inch tires fitted to the bicycle he had ordered, has met with discouragement. Almost invariably the bicycle manufacturer has either advised against their use or in some way begged the question and sought to avoid supplying tires of that dimension.

Whether or not the fact that some bicycles are so closely built that the use of tires in excess of 1½-inch leaves practically no clearance, is responsible for the attitude of the manufacturers is purely a matter of speculation but is one that at least appears to explain the situation.

Whatever the cause, it is about time that the subject was taken up in all seriousness. There is no question about the improved and improving health of the industry nor is there any doubt that 1¾-inch tires add immensely to the comfort of the cyclist; the skeptic has but to try them to receive a most agreeable awakening.

In the improving order of things, comfort can be made to play a large part. Convince a backslider that the bicycles of to-day are more luxurious than those of yesteryear and he is half won. He is older than he then was and therefore is in a position to appreciate that virtue. Larger tires of themselves will serve to carry such conviction. We honestly believe

that given a trial of two bicycles, three purchasers out of even five, will select the one with the more generous tires; they may not know the cause of the difference in the comfort, but it is the comfort that will decide their choice.

The shrewd agent easily can take advantage of the fact but the manufacturer himself will do more widespread good if he does not depend on the agent to prosecute the work. There is a big opportunity yawning for some one of them.

A Time for Cycling.

How is it that Nature, after her summer's task with brushes and paints, when all her tints are green and blue, suddenly awakens with the coming of the fall and getting out her daintiest hues, assiduously daubs away at the landscape, strengthening its outlines, dashing in new details here and there which before were hid by the verdure, and finally toning it with all the rainbow's fantastic harmonies—this is one of those recurring mysteries of her whim never quite to be understood. In science, uncompromising, unsympathetic science, lies some sort of explanation for the coloring given to leaf and bough and plain when the early frosts begin to grip the tender tissues. Yet no man, scientist or sage, knowing all of cellulose and protoplasm, can view it and yet have courage to say there is no mystery. But nature is active not alone with the brush. She electrifies her universe with her matchless energy in all respects. She rouses her dormant summer-lulled forces, awakens the winds, galvanizes the atmosphere, and fairly sets the world athrobbing in its silent individual plea for the setting aside of the cruelties of winter. It is magic divine.

And for him who avoids it, coops himself up in pen or crib, bends head and shoulders to the wheel and toils on ignorantly, all this grandeur is denied. It is Dame Nature's pleasure to give him one more picture—the brightest and best of all—before she retires to recuperate her energies and store her saps for the spring's renewal. If he refuses to look upon it, he alone is to blame, yet what he misses of joy and restless freedom, only the wild things know.

This grand show is now setting on the boards of the earth's broad stage. The scenes are shifting for the last act, wings and sets and drops are in readiness, the

lights are trying their glare, the curtain is rising. Hurry out of doors, man. Hurry! It is there, every bit of it, waiting for the audience. It will last two, three, four, maybe five weeks. And then the greys and browns will have their way.

Get out the bicycle, put on a coat and ride. Ride out and away from roofs and smokes, ride till the air grows cool. The crunch of soft-treading rubber on dead crisp leaves—the answering whirr of the whispering wheels—the quiver of the pedals, these joys will set the blood purring through the veins as never before. It is a time for cycling and than the cyclist none can see more or feel better.

Concerning Motorcycle Racing.

It is good news that comes from Providence—that motorcycle racing appears finally to have taken root. It is a glorious sport. A close contest between two or three of the little time-annihilators is about as thrilling a spectacle as it is possible to imagine. It is the sort of contest that men, and women, too, will go far to see. Unlike automobile racing, there is enough of the man-factor in motorcycling to make it seem much less like machine-made sport. But as we have said on several occasions, until motorcyclists race with their heads as well as with their throttles the attractiveness and permanency of the sport will remain dubious. A succession of runaways at one or two meets is the surest way to kill attendances.

The fact was never better illustrated than the “murder” by that sort of thing of automobile racing in New York. In 1905, eight or ten meets were held. Runaways were the rule and the attendance at each dwindled to such an extent that in 1906, no club or promoter had the courage to undertake even one meeting. At the same time Barney Oldfield and a few of his fellows toured the other big cities putting up the sort of sport that the public wants and has a right to expect. There was no faking—the best man with the best car invariably won, but the experts “drew the finishes fine”—in other words, they raced with their heads and supplied real excitement—and thousands paid to see them on each occasion. There is no more reason why the fastest motorcyclist should “go all the way” than why Kramer or Lawson on bicycles should do so. The whirlwind last lap and the hair-raising finish is what the public wants and pays to see.

WHY SOME RACERS GO STALE

The Trainer Points Out Some Failings and Also the Remedies, Incidentally Defending His Own Profession.

“Why are many of the riders going slower than they were at the beginning of the season?” said the trainer who had handled more than one champion, repeating the *Bicycling World* man’s question. “Well, I’ll tell you,” he answered. “In some cases that I know of the riders have over-trained rather than not trained enough. There are many little errors in training that can be remedied only by long years of disappointing experiences.

“The majority of riders know their best time over a given distance and when once this is reached their methods of training should be altered. For instance, suppose a certain rider can cover a quarter on the board track in 28 seconds and an eighth in 13 seconds. It is dollars to doughnuts that if he tries to beat these figures three or four times a week he will find himself getting slower at the end of that time. When a man once gets into shape he does not need that continual grinding and plugging away each day, sprinting with any rider that happens to take up the challenge or following pace for several miles.

“Although he should do as much riding the rate of speed should be much slower and more like ordinary exercise than a frantic effort to whip into shape or keep from going stale. Of course, it is well to ride against the stop-watch once a week, in order to see how one’s speed is developing, but a ride against time should be made at least three days before a race. An absolute rest from the bicycle is most essential after a hard day of racing but few ordinary riders appreciate this fact.

“A rider should weigh himself every week and a sort of tabulated diary kept of the work done, so that when the best performances are made some knowledge of how they are arrived at can be had. As soon as a rider shows the least sign of going stale he should put his bicycle away for a few days, take plenty of nourishment and he will soon reach his proper form again. Too many racing men try and ride the staleness off and the result is that they get so slow that a dub can go out and ride rings around them. I heard somebody say not long ago that trainers are the worst judges, but the person who made that remark did not know what he was talking about. In nine cases out of ten it is the rider who will not follow the advice of men who have been in the game for years that fail to get anywhere near the form it is possible for him to. It takes such experienced men as the Coburn brothers, Tom Eck, and others I might mention to make speed specialists out of wooden-legged riders, and they can work the transformation, if given half a chance.”

The Pulling of Fisher’s “Cork.”

Even the best bicycle riders must one day, sooner or later, succumb to the rising generation, and thenceforth be classified as “has beens.” It is always with feelings of “regret” that such occurrences are mentioned and therefore the newly organized Cork Pullers almost shed real salty Coney Island tears when they told of the crushing defeat administered, one night last week, to the hitherto invincible Franklyn Fisher, one-time Harlem Wheelmen champion, ex-champion of Long Island, and who used to trim National Champion Frank Kramer and who later has been assiduously holding the gold cork, the sign of supremacy of the Cork Pullers’ Club.

The Napoleon responsible for the downfall of Champion Fisher is Carl Erricson, an ambitious young rider who pulls teeth during business hours and tries to pull “corks” at night. It is stated by those who witnessed the occurrence that the young dentist extracted Fisher’s “cork” sans gas, sans “hesitation powders”—what “dope” that is members of the Cork Pullers Club will not say—and sans forceps other than a pair of sturdy legs. It is further stated that this is not the first time that Fisher has had a cork tooth extracted as Irvington-Milburn riders will testify, but that it is the first time that the crack has been, so to speak, bearded in his den.

Where Open Mufflers are Expensive.

There is at least one man in the United States who knows positively that it does not pay to ride a motorcycle with its muffler open. He is Harry Silver, of San José, Cal. Recently he choo-chooed down to Oakland, where the authorities some time ago passed an ordinance making it unlawful for any gasoline driven vehicle to go through the streets with the muffler cut out. Silver either knew nothing of the law or forgot all about it. At any rate, he sailed through Oakland with a Gatling gun accompaniment. It caused even the police to awaken and they promptly gathered him in. Silver told Judge Smith that he had lost a part of his muffler, but the explanation did not satisfy the judge, who imposed a fine of \$50 or the alternative of spending some time behind the bars of the county jail. According to advices from San José, Silver paid.

Libbey May Cross the Continent.

Charles Libbey, of Lynn, Mass., whom the local prints style “daredevil” and describe as “one of the best trick motorcyclists of this section,” has designs on the cross-continent record. He is pictured on one of Mr. Marsh’s machines and, it is stated, “expects to break the record by at least five days.” If he starts, he will make Boston his point of departure, but unfortunately “shortly” is the most definite date that has been set, which seems to suggest that he is making arrangements for snow shoes or to be preceded by snow plows.

PROVIDENCE "GETS ACTION"

Big Fields, Fine Track and Good Crowd
Makes its Motorcycle Meet the "Best
Ever"—Fluke Decides Title.

Motorcycle racing took root at Providence, R. I., on Sunday last, 23rd inst. Truth to tell, it has been rather a tender plant and one of slow growth. Perhaps the sport is too young to be forced, but whatever the cause, comparatively few motorcyclists has engaged in the speed competitions that have been held. There are few suitable tracks and the few men who have competed have raced like green-

it had been torn up and a circular half-mile course for horse racing has been substituted. There was some hitch with the trotting association and until the motorcycle events were run it had seen little use. It is a remarkably wide and well-drained track and it dried quickly. On Sunday it was as smooth as a billiard table. Several intermediate miles by Jacob De Rosier were clocked in 1:17. After the first two events had been decided in heats, Referee Douglas saw how safe were the turns and thereafter heats were dispensed with. In one race, 12 men started abreast and yet not a fall or accident occurred during the afternoon. The track owner became so greatly interested and enthused that it is

fington got the better of the fight in the former, winning in the stretch, but Domina "evened up" in the local event; Swenson was a factor in both races, but the others were a wee bit too fast for him.

Although three double cylinders lined up for the five mile open—J. De Rosier and S. T. Kellogg on Indians and E. Thurber on a Curtiss—six singles also were there to give them battle. De Rosier and Kellogg finished in that order in 6:47, but Buffington was able to take Thurber into camp in the run for third place.

The two miles national championship was also won by De Rosier in 2:42½, but on a fluke. Kellogg, who had won the three other national championships that were



THE BIG FIELD OF STARTERS IN THE PROVIDENCE CHAMPIONSHIP

horns and uninteresting runaways have been the result. People do not pay to see that sort of sport.

At Providence, however, a splendid track was discovered, the fields of starters were large and, conditions considered, an encouraging crowd was in attendance—it was in short, the best motorcycle racemeet that has been held in this country and the Providence Motorcycle Club was its sponsor. No less than eleven races made up the program and excepting the events restricted to certain machines, seven men constituted the smallest field of starters, while in the 10 miles handicap, fifteen lined up. Roland Douglas, chairman of the F. A. M. Competition Committee, served as referee and Dr. G. B. Gibson, treasurer of the organization, made his debut as starter, and did good work.

The sport had been scheduled for the previous day, Saturday, but a heavy rain caused the postponement, and despite the fact and though a small advertisement in the local papers was the only means of informing the public on such short notice, a crowd of some 700, including many ladies, made the six miles journey to Hills Grove track on Sunday. There used to be a cement bicycle trick at Hills Grove but

probable another meet will be run before snow-fly and that next year will see a series of them. The major share of the credit is due B. A. Swenson, chairman of the race committee, who worked like a trojan, and E. L. Buffington, president of the club, who were assisted by W. A. Suddard, A. Heilborn and A. J. Fisher.

The one mile novice, run in two heats, was a runaway for J. S. Seidell, of Springfield, Mass. The final of the one mile Providence club's championship for which eight men qualified, was, however, a fine struggle. The leaders remained well bunched until the second lap, when F. E. Domina, on a 3¼ horsepower machine of his own manufacture, came from behind and stalling off a good effort by E. L. Buffington (Indian) won by two lengths in 1:36½. Both men were conspicuous throughout the afternoon. Domina, in particular, is the heady sort of rider who will make race meets interesting. He gets away very slowly but picks up quickly; but he never tries to run away, invariably trailing until the last lap when he "opens up" and gets in front or near to it. He and Buffington "had it out" once more in the five miles State championship and again in the club championships, in which 12 men started. Buf-

run at the F. A. M. meet in Rochester, had his heart set on making a clean sweep. On Saturday he was 50 yards to the good and was in a fair way to realize his ambition, when mistaking the last lap signal he sat up a half-mile too soon. De Rosier and Swenson shot past and though Kellogg got going again, he was unable to again get in front, though he did collar Swenson, who beat out Buffington, Domina, who for the occasion rode an Indian, and two others on singles, while the crowd voiced a vociferous "Run it over."

Swenson demonstrated his "versatility" by competing in each of the events restricted to Indians, Merkels and Marshes, changing his mount each time, of course. He won the Marsh race from the only other starter and was third in the contest for Indians. The latter supplied the fastest mile of the day by a single cylinder, Buffington beating out Seidell in 1:34½, despite the fact that his coil, which had been fastened to the frame with white tape, was dropping off and in momentary danger of causing a spill. Although warned of his danger, Buffington shook his head and refused to stop or slacken his speed.

The ten miles handicap, with 15 starters, was a fine spectacle but the scoring was

complex and resulted in a mix-up. De-Rosier, on a 4 horsepower Indian, was on scratch, Thurber and Kellogg had 30 seconds while J. Nisbet (Merkel), E. Waite (Yale), K. R. Olsen (Merkel), and B. L. Barnes (Merkel), had the limit—4½ minutes. This meant, of course, that practically all the contestants, save Kellogg, had from one to five laps before De Rosier was given the word. It was a close race and a good bit of handicapping. The men were well bunched on the last lap, Kellogg having made a fine run and being within striking distance of the leaders, with De-Rosier a half-lap behind him. Kellogg thought he had won, so did Heilborn, 4 horsepower Orient, but the judges and scorers placed Domina, 3½ minutes, first; Buffington, 4 minutes, second; Heilborn, 3½ minutes, third; Swenson, 3 minutes, fourth, and Kellogg, fifth. Only the time of the scratch man, De Rosier, was taken—13:00½. The summary:

One mile novice—First heat won by D. Reilly, 1¾ horsepower Warwick; second, F. Labonte, 2¼ horsepower Indian; third, C. Loftes, 2¼ Merkel. Time, 1:52. Second heat won by J. S. Seidell, 2¼ horsepower Indian; second, B. A. Swenson, 2¼ horsepower Indian; third, A. Whitmarsh, 1¾ horsepower Indian. Time, 1:36½.

One mile, Providence Motorcycle Club championship—First heat won by E. L. Buffington, 1¾ horsepower Indian; second, F. Thurber, 5 horsepower Curtiss; third, A. Whitmarsh, 1¾ horsepower Indian. Time, 1:42. Second heat won by F. Domina, 3¼ horsepower Domina; second, B. A. Swenson, 2¼ horsepower Indian; third, J. L. Pickering, 2¼ horsepower Indian. Time, 1:45. Final heat won by Domina; second, Buffington; third, Whitmarsh; fourth, Thurber. Time, 1:36½.

Five mile open, amateur—Won by J. De Rosier, 4 horsepower Indian; second, Stanley T. Kellogg, 4 horsepower Indian; third, E. L. Buffington, 1¾ horsepower Indian; fourth, F. Thurber, 5 horsepower Curtiss. Time, 6:47.

Five mile open, amateur, Rhode Island championship—Won by F. Domina, 3¼ horsepower Domina; second, E. L. Buffington, 1¾ horsepower Indian; third, B. A. Swenson, 2¼ horsepower Indian; fourth, A. Whitmarsh, 1¾ horsepower Indian; fifth, A. Heilborn, 4 horsepower Orient. Time, 7:30½.

One mile exhibition—J. De Rosier, 4 horsepower Indian. Time, 1:20.

Five miles, for single cylinder machines; Providence Motorcycle Club championship—Won by E. L. Buffington, 1¾ horsepower Indian; second, F. Domina, 3¼ horsepower Domina; third, A. Whitmarsh, 1¾ horsepower Indian; fourth, B. A. Swenson, 2¼ horsepower Indian; fifth, A. Heilborn, 4 horsepower Orient. Time, 7:45½.

Two miles open, F. A. M. national championship—Won by J. De Rosier, 4 horsepower Indian; second, Stanley T. Kellogg, 4 horsepower Indian; third, B. A.

Swenson, 2¼ horsepower Indian. Time, 2:42½.

One mile for Marsh motorcycles—Won by B. A. Swenson; second, A. Carlson. Time, 2:05½.

One mile for Merkel motorcycles—Won by C. Loftes; second, B. L. Barnes; third, J. Nisbet. Time, 1:55.

One mile for Indian motorcycles—Won by E. L. Buffington, 1¾ horsepower; second, J. S. Seidell, 2¼ horsepower; third, B. A. Swenson, 2¼ horsepower. Time, 1:34½.

Ten mile handicap—Won by F. Domina, 3¼ horsepower Domina (2:30); second, E. L. Buffington, 1¾ horsepower Indian (2:30); third, A. Heilborn, 4 horsepower Orient (3:30); fourth, B. A. Swenson, 2¼ horsepower Indian (2:30); fifth, Stanley T. Kellogg, 4 horsepower Indian (0:30). Scratchman's (De Rosier) time, 13:00½.

Two mile bicycle—Won by A. Loftes; second, J. Nisbet; third, A. J. Fisher; fourth, Fred Wilke; fifth, J. L. Pickering. No time taken.

Simar Downs Two Americans.

Caesar Simar, the French pace follower who has only recently recovered his one-time brilliancy, was the hero of the hour at the Vélodrome parc des Princes, Paris, on Sunday, 16th inst., when he defeated Louis Mettling and Hugh MacLean in three straight heats. MacLean had only arrived in Europe a few days previous and although he had little or no time to train showed to advantage although he ran third in each heat. The first heat was at 10 kilometres and Simar won out over Mettling by three-quarters of a lap. MacLean trailed last three and one-half laps. Time, 8:38½. In the second heat Mettling made a quick start and led for the greater distance, but Simar again won by the same lead as in the previous heat, while MacLean was third by three laps. The distance was 20-kilometres and the time 17:12½. The final heat was 30-kilometres and Simar finished first in 26:22½, beating Mettling by a half-lap and MacLean by three laps.

For the New Jersey Championship.

In the first of the championship series of races held by the New Jersey division of the Century Road Club of America, on the new boulevard at Grant City, Staten Island, Sunday last, 23d inst., Fred Peterson, State centurion of the division, again captured the honors of the day, winning the one, three and five mile events. Whereupon the usual smile on President A. G. Armstrong's physiognomy broadened until it seemed that his face could not hold it; indeed, some of it did escape and settle over Harry Early's and Peterson's features. The reason is well apparent. Armstrong has stoutly maintained that the combination of a fast rider on a Columbia chainless bicycle with 8-inch cranks, Ramsey swinging pedals and 30-inch wheels, the latter fitted with his improved Palmer racing tires, is about

the fastest that can be combined, and last Sunday's outcome served to support his theory.

But Peterson is entitled to his full share of the glory for he showed that he has not lost any of his old time speed since he began to shine a decade or so ago and he set up a pace in each event that had many the tongues lolling in the effort to hang on. Harry Early, who also believes in the Armstrong combination and Ben Evessen, came nearest to giving Peterson a run for the prizes, but even he was beaten by the length of two wheels in one of the three mile races. In the five mile Early lost first place by inches and the finish was so close that many of the spectators declared it a dead heat. Evessen finished second in the one and three mile events.

Last Sunday's races were the first three of a series of five that will decide the championship of the division for the year and the winners will receive, respectively, solid gold, silver and bronze medals. There yet remains the ten and twenty-five mile events to be run. The standing of the riders, in points, is: Fred Peterson (15), Ben Evessen (8), Harry Early (7), Frank Blatz (1). The summary of last Sunday's events follow:

One mile open—Won by Fred Peterson; second, Ben Evessen; third, Harry Early. Time, 2:43½.

Three mile open—Won by Fred Peterson; second, Ben Evessen; third, Harry Early. Time, 8:00.

Five mile open—Won by Fred Peterson; second, Harry Early; third, Ben Evessen; fourth, Frank Blatz. Time, 14:25½.

Amateur Champion Becomes Cash-Chaser.

Francesco Verri, the young Italian crack, who flashed upon the cycle racing horizon as a star of the most brilliant order, and who this season won the amateur Grand Prix at Paris, the amateur world's championship at Geneva and previous to that scored a win every time he rode at the Olympic games in Greece, has thrown in his lot with the cash chasers. He made his debut as a professional at Mantua, Italy, two weeks ago and won the Italian sprint championship from Gardellin and Fontani, and the fact of a rider winning a championship in his first race as a professional is unprecedented.

Adee Leads the Mileage Men.

D. D. Adee, a son of the "only Dan M.," of Metropolitan, L. I., now leads in the National mileage-century competition of the Century Road Club Association, as the report for the eight months to Sept 1st discloses. The next riders in order are: 2, A. Lewin, Brooklyn; 3, J. F. Paulson, Brooklyn; 4, H. Heldman, New York City; 5, M. S. Walters, New York City; 6, H. Gill, Bridgeport, Conn.; 7, George S. Sweet, New York; 8, J. B. Hawkins, New York; 9, A. E. Due, Brooklyn; 10, J. A. Olsen, Brooklyn; and 11, E. States, Brooklyn.

SHERWOOD AND COLLINS WIN

They Share Honors at Vailsburg and Kramer Trails the Motor—More than 6,000 Persons Witness the Sport.

Charles A. Sherwood, of the New York Athletic Club, practically clinched the national amateur championship last Sunday, 23rd inst., by winning the five mile championship race at the Vailsburg board track. Sherwood now occupies the top rung of the ladder with 17 points and has a chance to fall down two or three rungs before being passed by George Cameron, also of the New York A. C., who is in second place with 10 points.

Undoubtedly the featured motorpaced racing at the track is more than taking the place of the dropped professional sprint races, for since following the motors came into vogue the crowds have been greater each succeeding Sunday. At the last meet congregated the greatest crowd of the season, being estimated at over 6,000, and it was by far the most enthusiastic, too, for they gave a hand to Sherwood when he won the five mile championship, and to the clever Lynn pace-follower, Elmer J. Collins, when he defeated James F. Moran, of Chelsea, in two of three heats in the motorpaced race.

The final heat of the amateur championship race was a gruelling struggle with several apparent teams in the fray. James Zanes made an effort to shut out Sherwood in the semi-final heat, but Magin, who was to tack on when Zanes jumped, missed his chance and Sherwood got in easily. In the final heat the riders had pacemakers up until half a mile from the finish, Jacob Magin pacing for two and one-half miles. Cameron punctured while entering for two and one-half miles and Thomas Smith took the pace and slowed the bunch until Cameron had time to change mounts and overhaul. Cameron jumped from the rear before the bell and started to run away from the bunch, but he died at the last eighth. Sherwood led into the stretch with Zanes coming up fast on the outside and McDonald trailing. In the stretch Sherwood rode wide and Zanes sat up, Sherwood winning by a length and a half. Nearly everybody near the tape thought Sherwood rode Zanes wide, and the latter protested, but the referee did not allow the claim. McDonald, the strong Tiger, got third, and Cameron fourth.

Sherwood and Cameron were the only scratch men to qualify in the half-mile handicap and that they did not get placed in the finals was because they let the long-markers go out while they waited for Zanes to sprint. The result was that Willie Vanden Dries, of the N. Y. A. C., won out from the 40-yard mark, James Brennan getting second from 80 yards, Thomas Smith third from 50, and Ike Lindsay, the negro, fourth with 60 yards handicap.

Frank L. Kramer made his first appearance since returning from Salt Lake City, in a half-mile exhibition, but the champion will have to ride faster if he intends to trim the riders now following the machines. Kramer's half was done in 51¾ seconds.

"Little" Johnny King was a big surprise in his ten-mile motorpaced match race against the boy wonder, Ashurst. King rode in his old-time form holding the pace in good fashion and he practically rode Ashurst off his feet. King went to the front on the third mile, where Ashurst lost his pace and from that point on gradually forged ahead, winning by nearly three laps. The fastest mile of the race was the fifth when King covered the four laps in 1:39 which is fast going for Vailsburg.

The feature race of the day was the motorpaced match between Moran and Collins, run in heats. Moran had trounced Collins on the previous Sunday, because the latter punctured a tire and as Collins had never before been whipped since he took to following the motors he naturally wanted a chance for a comeback at Moran to show his true colors. He got it and he made good. Both riders were cheered when they appeared for the first heat at five miles. Collins got away in the lead, riding on the outside, and he reeled off the first mile in 1:44 for an opener and then increased the time to 1:40 for the second. On the third mile Moran made a bid for the lead but he was not equal to the effort and in the fifth mile he punctured and lost two laps while changing wheels. This put him out of it for he could not make up the distance and Collins won the heat by that distance.

The second heat was at ten miles and Moran came out for it fully primed and wearing a helmet. He led for three laps only to have Collins sneak up from the rear and go ahead for the first mile and lead for two more. Then the real struggle began. Moran cut out the pace and after battling for two laps neck and neck Collins was shaken off his roller and fell back for a loss of twenty-five yards. Moran was riding in fine form, doing miles in 1:35 and 1:36. Collins cut down the lead at six miles only to again lose his pace, this time for a half-lap. Moran continued faster than ever and covered the last three miles in 1:33, the best time for the race and winning out by one lap.

Collins showed just what he can do when the deciding heat at five miles was called. He had the better of the argument from the start. Getting away at the start and swinging down into the lead at the first mile, close enough to make Moran wobble and lost his pace. The third mile saw Moran make an effort to take the lead and a fierce struggle for two laps resulted, but he did not succeed and on the fourth mile he fell back again, losing his pace in the fifth mile. Collins plugged on and won out by fifty yards. Winning the race gives Collins a change to ride against Frank Kramer to-

morrow (Sunday) and what the Lynn amateur is expected to do to the champion is to add his scalp to his already well-filled belt.

Evidently the management considers there are not many novice riders left, in view of all the ringing in that has been going on, for on last Sunday the usual novice race was omitted from the program. The summary of the events follows:

Five mile national amateur championship—Trial and semi-final heats at one mile. First heat won by Urban McDonald, Tiger W.; second, A. C. Spain, Bloomfield. Time, 2:42½. Second heat won by George Cameron, N. Y. A. C.; second, B. Neuschaefer, National Turn Verein W. Time, 3:07¾. Third heat won by James Zanes, Roy W.; second, Jacob Magin, National Turn Verein W. Time, 2:43¾. Fourth heat won by C. A. Sherwood, N. Y. A. C.; second, Charles Mock, C. R. C. of A. Time, 3:00¼. First semi-final heat won by McDonald; second, Cameron. Time, 3:27¾. Second semi-final heat won by Zanes; second, Cameron. Time, 3:21½. Final heat won by C. A. Sherwood; second, James Zanes; third, Urban McDonald; fourth, George Cameron. Time, 12:28¾.

Half-mile handicap, amateur—Qualifants: W. Vanden Dries, N. Y. A. C. (40 yards); James Brennan (80 yards); Thomas Smith, N. T. V. W. (50 yards); W. J. Kluczek, Roy W. (10 yards); James Zanes, Roy W. (20 yards); C. A. Sherwood, N. Y. A. C. (scratch); George Cameron, N. Y. A. C. (scratch); A. C. Spain (40 yards); I. L. Lindsey (60 yards); H. Vanden Dries, Edgecombe W. (40 yards); Jacob Magin, N. T. V. W. (20 yards), and Charles Jacobs, Roy W. (30 yards). Final heat won by W. Vanden Dries; second, James Brennan; third, Thomas Smith; fourth, I. L. Lindsey. Time, 0:59¾.

Ten mile motorpaced match, professional—Won by John King, Newark; second, Alfred Ashurst, Newark. Time by miles—1:41, 1:41, 1:41, 1:46, 1:39, 1:41, 1:40, 1:40, 1:40, 1:45; total, 17:01.

Half-mile against time, behind motorpace—Frank L. Kramer. Time, 0:51¾.

Professional motorpaced match race between Elmer J. Collins, Lynn, Mass., and James F. Moran, Chelsea, Mass.—First heat (ten miles) won by Collins. Time, 17:33. Second heat (ten miles) won by Moran. Time by miles: 1:38, 1:45, 1:51, 1:36, 1:36, 1:34, 1:33, 1:33, 1:33; total, 16:13. Final heat (five miles) won by Collins. Time by miles, 1:35, 1:39, 1:36, 1:33, 1:43; total, 8:06¾.

Guignard the Motorpaced Champion.

Paul Guignard won the motorpaced championship of Europe at Dresden, on September 9th. The distance was 100-kilometres. Robert J. Walthour, the American, finished second and Thaddeus Robl and Piet Dickentmann were, respectively, third and fourth.

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IN THE MISSOURI BACKWOODS

Where Motorcycles Were Unknown and
Where, Perforce, "Things Happened"

—A day of Incident and Pleasure.

One of the most delightful features of motorcycling is the facility with which it may be made to serve the purposes of the week-end holiday. To this end, the well regulated club may be made to supply its

One of their recent Saturday to Monday jaunts was to Louisiana, Mo., a round trip of something over 225 miles, which was easily covered, with plenty of time to spare for the various roadside episodes which go to make history interesting. The Pike county roads turned out to be in fine condition, the weather was magnificent, and there was nothing to hinder putting the machines along at a forty-mile clip. Fortunately, they escaped the particular attention of the numerous deputy sheriffs, who

was one of the most exciting trips in the course of the several years' history of the club. We encountered all sorts of receptions along the way, from gaping crowds of rustics, to venomous natives who "sicked" their dogs on us. But the latter were doomed to disappointment, for even the fleet-footed grey hounds were unable to keep within barking distance of us.

"This was the first invasion of that part of the country by motorcyclists, and some of the farmers were willing enough to give



INCIDENTS OF A DAY'S RUN IN MISSOURI

members with a deal of enjoyment during the course of a season, and at small cost, either of time or expense. An illustration of this truth is found in the case of the St. Louis Motorcycle Club, which is in flourishing condition. The country round about St. Louis is fraught with the traditions of the early cycling days, and every mile of highway has its points of interest to the old guard, but the new machines enable them to cover in a few hours, distances that were monuments to hours of toil in the days gone by, and give the riders on a single run the scenic benefits which then, were gained only in extended journeys.

abound on all the Missouri roads owing to the peculiar state of the motor vehicle law. For in addition to the \$2 annual city license fee the St. Louisians are obliged to pay for the privilege of riding, they are mulcted \$2 for county licenses from every county whose borders they cross. Then, there are the speed limits and other regulations with the penalties for their infringement, but luckily they all escaped to tell the tale.

Some of their adventures were a bit thrilling, others were humorous, but they all go to make up a good story. Said John Hurck, a well-known pioneer dealer, "It

us a taste of lynch law if they could have gotten hold of us. Sometimes the farm wagons would dash along ahead of us for miles and baffle all our efforts to get by them.

"A machine broke down and the party stopped to repair it. After we had worked for half an hour a farmer, looking very much scared, popped out of the brush. He had heard the motorcycles from a distance, unhitched his horses and driven them several hundred yards from the roadside to give us a clear right of way.

"'Dod blast yer onery hides,' he exclaimed when he saw us, 'I thought you city

guys had automobiles and I unhitched to get outen yer way, and here yer hain't got nothin' but old chug-wuggers.'

"Many St. Louis people travel from the city to their summer homes in Pike county in their automobiles, but the farmers' horses have not yet become accustomed to their patented rivals and many serious run-away accidents have occurred. The motorcycle was new to most of the farmers, who had never even heard of such a thing. When they got word of our approach in advance they were lined up along the roadside to see us skip by, and much they marveled at the speed we attained.

"We met one farmer with a large drove of hogs. The porkers were hot and tired but they took on new life when they saw us dash up. By the time the last motorcycle had passed the hogs were well scattered over the neighboring hillsides, and the drover was sending his shepherd dogs after us.

"We found several small rivers that caused us considerable trouble. When they were not deep we forded them at a speed of 20 miles an hour, but some of them were so wide and deep that we had to wade across and carry our machines on our backs.

"Two of the boys had considerable trouble with their machines. At St. Peter's, half way back, they caught a train and returned to St. Louis, expressing their motorcycles. They were trailing along behind the rest of the party and were not missed until we arrived in St. Charles. After waiting a reasonable time for them, I was dispatched to seek them. I doubled back for 25 miles, making inquiries of everybody I met, but could discover no trace of them. When I got to St. Louis next morning, I found they had beaten me home by twelve hours."

This was the last but one of the summer series of week-end runs. All have been filled with interest, and the enthusiasm of the riders has developed strength continuously. The final trip in contemplation, is a run of 125 miles to Mexico, Mo., which is scheduled to come off before the end of the best riding season.

San José Cyclists at Play.

About fifty members of the Garden City Wheelmen and Motorcycle Club of San José, Cal., participated in a run to Centerville, where a ball game and several races were held, on Sunday, the 16th inst. Livo Maggini won the mile handicap with Clifford Poole second and Mige Maggini a lonesome third; all the other riders fell. "Owl" Murphy showed some of his old-time form by winning the two mile handicap by half a wheel's length from Plinn Maggini. Carl Showalter was third. An unlimited pursuit race followed which was contested by two three-man teams, constituted by Showalter, Chaboya and Murphy and P. Maggini, L. Maggini and Willard Parsons. The latter team won out after a hard struggle.

WHAT CAUSED THE NOISE

Chain was Suspected 'but Bearings Finally Proved Guilty and Disclosed Instructive Condition.

It is customary with the average cyclist to attribute almost every strange noise produced by a machine while running to the chain and where this partakes of the nature of snapping or crackling, it is put down as a foregone conclusion that dirt or lack of alignment is the moving cause. This is frequently not the case, however—the cause lies deeper and the fact that cleaning followed by a liberal application of graphite does not cure the difficulty should lead to closer investigation. It is axiomatic that the ball bearing does not function well when excessive side play is permitted; its construction is such as to preclude it as will be evident to even the least mechanically minded of riders upon a moment's consideration. This is particularly true of the old style of bearing in which the race is entirely filled with balls, but it also applies where ball retainers are employed, although not to quite the same extent. Where the balls are loose in the race any excessive lateral play between the wheel and the cones on the axle permits the balls to "wander" out of the beaten path.

With each stroke of the pedals and its accompanying tug at the rear sprocket the entire wheel moves sidewise more or less and the balls crowd each other instead of running smoothly around one after the other in a single line. This has the effect of pushing the balls out sidewise and also causes them to try to ride over one another in this direction. The inevitable result is that one or more of them becomes broken and relieves the pressure, and both before and after this has occurred the noise accompanying it will be exactly similar to the snapping and grinding usually due to a dirty, rusty chain. If permitted to continue the broken balls will in turn fracture one of the cones and then the day of reckoning can no longer be postponed.

Where ball retainers are employed as is universally the case nowadays, the same thing is apt to occur sooner or later although it will stand a greater latitude without suffering. Still excessive side play will permit the ball retainer to be forced out of its socket by the constant and irregular movement of the hub and it will be nipped between the inner edges of the latter and the cone. This results in destroying its alignment and before long allows one or more of the balls to drop out of place thus bringing about its destruction, and if not taken in time, that of the entire bearing.

At first sight, this may appear to be somewhat far fetched as a theory, but on the contrary it is based upon actual experience. The machine in question invariably made a snapping, crackling noise that

was put down to a dirty chain or lack of alignment, but no amount of either adjustment or cleaning remedied matters. An examination of the bearing showed two of the six balls to be badly broken and the retainer to be somewhat bent so that it did not hold them properly. Upon repairs being made the noise ceased altogether and as was to be expected, the running was greatly improved, but it was noticeable that within a very short time the rear wheel became very loose and not long after the same snapping and crackling reappeared, but as usual, was again attributed to the chain.

The machine was ridden occasionally without further attention until things came to a sudden climax, the driving wheel becoming tightly bound and refusing to turn. Readjusting it permitted a ride of about two or three hundred yards when it caught the axle and turned it until the retaining nuts were shed and then bound tight again. Examination revealed a badly bent and twisted ball retainer, three broken balls and a broken cone and further showed that the axle thread was more or less stripped which was, of course, the original source of the trouble as its failure to hold the cone in the proper place was what permitted the excessive side play. As the thread on the axle was badly worn for almost three-quarters of an inch the only thing that limited the side play was the stay of the rear fork. It was an instructive illustration of what constitutes the proper adjustment for ball bearings—they should have sufficient end play, that is, the balls, whether with or without a retainer, should not be at all crowded, but they should only be permitted the minimum of side play that will allow the wheel to drop around of its own accord when held free of the floor.

The King and the Runaway Bicycle.

Among his many other accomplishments, King Edward is reported to be gifted with that quality of nerve and quickness of eye and hand which enables him to do the right thing at the right moment. His powers in this direction are said to have been instrumental in saving the life of a small girl recently. While at Marienbad, he was walking up a steep hill, when the child who had evidently lost control of her bicycle, came dashing down towards him. There was a sharp turn at the foot of the hill, into which both bicycle and rider must have inevitably dashed unless their headlong flight could be checked. But quick as a flash the ruler of all Britain and Emperor of India, thrust his cane between the spokes of the front wheel as it was about to pass him and caught its rider in his arms as she was about to fall. This has since come to be known as the "Royal Method" of saving life.

"Motorcycles and How to Manage Them." Price, 50 cents. The Bicycling World Co., 154 Nassau Street, New York City. ***

24 HOURS BEHIND TANDEM

Pottier Does Great Work and Takes the Honors in the Classic Bol d'Or—Averages Over 24 Miles Per Hour.

Réne Pottier, who will probably be seen in this year's six-day race, won the twelfth annual classic Bol d'Or, or twenty-four hour race, which was held at the Velodrome Buffalo, Paris, on September 8th and 9th. During that period Pottier covered 578¼ miles, averaging 24 miles an hour throughout the long grind. He therefore breaks the record made by Petit-Breton in 1904. The American record for 24 hours made in a six-day race is 510 miles, but that is without pacing; in the Bol d'Or the riders were allowed relays of tandems. Nearly 25,000 spectators were in the enclosure when the event was called and the riders who lined up for the start were Pottier, Trousselier, Petit-Breton, Georget, Ringeval, Jaeck, Cornet, Samson, Cadolle.

Paced by crack tandem crews the men dug to their tasks and Petit-Breton showed inclinations to force the pace. At the end of the first hour Georget, Pottier, Cadolle, Cornet, Trousselier and Petit-Breton were on even terms with 45.6 kilometres, and Ringeval had lost one lap, and Samson and Jaeck, 12 and 13, respectively. At the ending of the second hour the score was: 1, Georget; 2, Pottier; 3, Cornet, ½-lap; 4, Cadolle, 1½ laps; 5, Trousselier, 2½ laps; 6, Petit-Breton, 9 laps; 7, Ringeval, 15 laps; 8, Samson, 29 laps, and 9, Jaeck, 41 laps. The tail enders had all lost laps through falls. Georget led at the end on the third hour and was then inside the record with 136½ kilometres. At the end of the fourth hour Pottier had come to the front and had knocked a kilometre off the old record and was ahead of Georget by a similar distance. In the five hours Pottier had traveled the record distance in this race of 138 miles, or at a speed of 27½ miles an hour.

During the night the track was lighted by electric arc lights but some confusion was caused at one time when they all went out. Fortunately no accidents resulted. Breton, the favorite, lost several laps because of insufficient pace and Cornet and Cadolle lost much ground through illness. Pottier suffered much through the night with cramps, but with great pluck kept going and managed to maintain the advantage gained during the early part of the race.

At the end of the twelfth hour Pottier had ridden the record distance of 313 miles, and he was fully twelve miles ahead of the next man, Trousselier, with Georget a good third and Petit-Breton fourth. At the fifteenth hour Pottier was still leading but he met with an accident soon after, a burst rear tire on his pacing machine causing him to fall. He was up and going again soon after but lost a few laps. In the next hour Breton retired with cramps and Cor-

net, who had suffered much with his knee, gave up the struggle.

Throughout the morning the heat from the sun was intense and the riders, with the exception of Pottier, who managed to keep up a fine clip, were content to jog around listlessly. In the last hour there was a general waking up. Georget in endeavoring to snatch second place from Trousselier, made a long sprint and gained a lap on his rival but the French six-day rider put up a good fight and managed to hold his own. Pottier unwound at the last and finished strong. When the gun sounded the finish, at 24 hours, the riders were in the following positions:

First, Pottier, 578¼ miles; second, Trousselier, 567 miles; third, Georget, 557 miles; fourth, Ringeval, 503 miles; fifth, Jaeck, 445 miles.

Nerent a Club Champion, also.

Charles Nerent, who belongs to almost every cycling club in the metropolitan district and who won the championship of the Century Road Club Association, has another title now. He is champion of the Brower Wheelmen, by virtue of winning the five mile race for the title last Sunday at Valley Stream, L. I. Nerent was given a hard fight for the honor by Charles Schlosser and George Thoreakos, who finished second and third, respectively. One of the surprises of the day was sprung when A. Allen, an unknown, who had previously won the quarter-mile novice, ran away with the four mile handicap. Thoreakos got second. The summary follows:

Quarter-mile novice handicap—Won by A. Allen (1:00); second, R. Klein (0:45); third, L. Newman (0:45).

Four mile handicap—Won by A. Allen (2:15); second, George Thoreakos (1:30); third, L. Newman (2:15).

Five mile open, for club championship—Won by Charles Nerent; second, Charles Schlosser; third, George F. Thoreakos. Time, 12:48.

18,000 Witness Walthour's Defeat.

Eighteen thousand persons saw Robert J. Walthour, America's champion motor-pace follower, defeated at the reunion at Leipzig, on September 16th. The distance was 100-kilometres and Piet Dickentmann beat Henri Contenet for first place by a half-lap in 1 hour 2 minutes 14 seconds. Walthour ran a bad third. In the sprint races Thorwald Ellegaard, the world's champion, was the big winner, getting successively the 2,000 metres and 3,000 metres and with Bader as his partner, the 3,000 metres tandem race.

Eighteen hundred cyclists recently participated in a church parade service at Londonderry, England. Whether the fact that Lord Londerry provided luncheon gratis was responsible for the immense turnout is not stated.

BIG ENTRY FOR ROY'S ROAD RACE

More than 200 Aspirants for "Inter-State Championship"—Likely to Prove Biggest Event Since Boom Days.

Everything is now in readiness for the so-called Inter-State Cycling Derby, for the road championship of the Eastern States, which is being promoted by the Roy Wheelmen of New York, and which will start at Valley Stream, to-morrow, 30th inst., at 2 p. m. The prophecy made some time ago that it would prove the biggest road race of the year gives promise of being more than fulfilled if the weather proves favorable.

When the entries closed on Monday night of this week, 233 aspirants for the title and gold medal that will be given, not to mention the bicycle that will go to the winner, had entered their names.

The men have been given liberal handicaps, ranging from scratch to fifteen minutes and it is fully expected that the president of the Roys, who is offering a suitably inscribed gold medal, should the record of 1:02:29 be broken, will have to present the medal to one of the scratch men. The distance of the race is twenty-five miles.

It was expected that Sherwood, Cameron and Zanes would ride, as Manager Beers of the Vailsburg track, promised the promoting organization that he would not hold a conflicting championship race on the date of the road race, but he has failed in his promise and the leaders in the amateur championship will not ride. There will be plenty of other fast men, however, among them being the Eifer brothers, Duester, Graf and Demorest of the Century Road Club; L. J. Weintz, New York A. C.; "Sir" Walter Raleigh and A. R. Wilcox, National A. C.; McDonald, Kessler and Huron, Tiger Wheelmen; Rhodes, Lind, Fisher and a half-dozen former champions of the recently formed Cork Pullers Club. Among the fast out-of-town riders who are down on the program to ride are W. Richard Stroud and Dan Trotter, Philadelphia; Emil Blum, Chicago; George Wiley, Syracuse; F. S. Probst, Warwick, N. Y.; Fred Schudt and W. W. Whitelock, Buffalo; Charles Van Doren, Atlantic City; A. F. Connor, H. E. Halliwell and H. I. Reynolds, Lynn, Mass.; A. R. Ives, Meriden, Conn.; Charles Kelson, Brockton, and Carroll, Drummond, James, Lange, Wuensch, Montville, Magin, Kluczek, Spain and Sheridan, from New Jersey.

Will R. Pitman, of the Boston Bicycle Club, will referee the race and the judges that have been selected are A. G. Armstrong, C. R. C. of A.; D. M. Adee, C. R. C. A.; Richard Stern, Bay View Wheelmen and H. F. Smith, G & J Tire Co. J. Fogler, winner of the six-day race, will start the men and H. A. Glieman, president of the Tiger Wheelmen, will act as clerk of the course.

*Hudson**Hudson*

WHY?

Q Why are "Hudson" bicycles the most popular? Is it because they are equipped with D & J hanger? But why are the D & J hangers so popular? They have never been so extensively advertised as other hangers and their cost has been so high that other manufacturers use them only when compelled to.

A We are getting out a book entitled "Why" for fifty of the best answers to the above. We will send copy of the book entitled "Why" in connection with a souvenir that will come in handy.

1907 Hudson Bicycles

WILL LIST AS FOLLOWS:

Model "A"	.	.	.	\$50.00
Model "B"	.	.	.	40.00
Model "C"	.	.	.	30.00

THE HUDSON MANUFACTURING CO.

Main Office and Factory, HUDSON, MICH.

WE DISTRIBUTE TO AGENTS FROM THE FOLLOWING POINTS:

New York—NEW YORK SPORTING GOODS CO., 17 Warren St.
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*Hudson**Hudson*

FOR MEASURING POWER

**Seller's Simple but Ingenious Instrument
that Renders it Possible—How the
Dynamometer Operates.**

With the constantly growing interest in the mechanical side of motorcycling, questions of horsepower, both in motors, and as involved in discussions of the efficiency of transmissions, are fast becoming familiar among even the untechnical class of users, and it is possible that the time is not far distant when actual tests will be required by purchasers in order to establish the rating of their machines. One thing which has delayed the growth of this demand more than otherwise might have been the case,

near the fulcrum. The carriage, which in its simplest form may consist of a block of wood, is dragged along the lever by the friction caused by the rotation of the pulley, this motion causing a strain upon the spring balance, the magnitude of which is registered upon its dial. This force, together with the peripheral speed of the pulley is all that is required in calculating the power.

As shown in the accompanying illustration, the lever A, is borne down by the weight B, its opposite end rising in consequence and causing the block D to be dragged outwardly along the lever by the friction of the rim of the pulley C. The force required to keep the block from being thrown out by the latter, is measured by the reading of the spring balance E, which in this way furnishes a measure of the power

than altering the amount of force necessary to be applied at the outer end in order to absorb a given amount of power, has no effect upon the reading.

One important point in connection with the application of the device, is that there are no corrections to be applied to the readings in order to obtain the correct power figure. The friction of the rollers which support the friction block, which at first might seem to be involved, really does not enter into consideration at all where a constant load is to be taken, for under those circumstances the block is obviously held stationary by the drag of the pulley, and hence the element of rolling friction is not entertained. Hence, when there is complete equilibrium, no other factors are involved than the speed of the pulley and the drag upon the block.

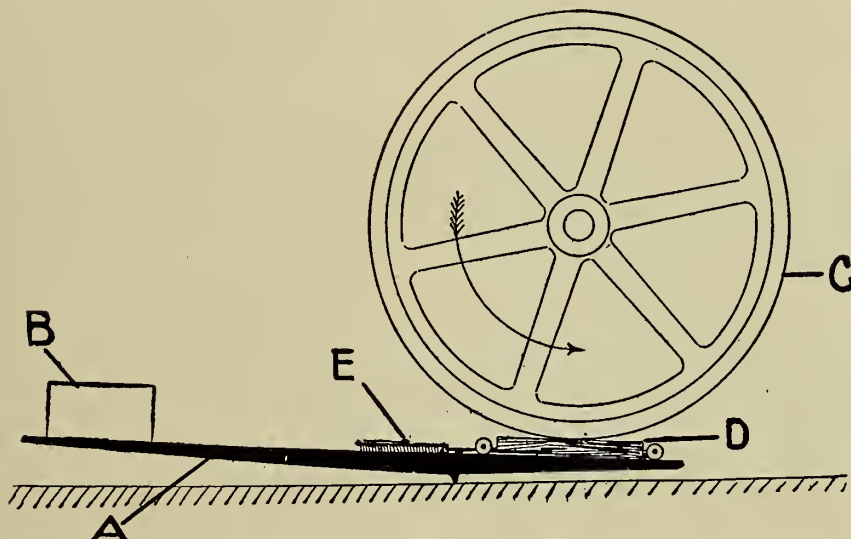
For cases where tests requiring great accuracy are to be made, where other than a momentary reading is required, it is evident that the heating of the block would cause a variation in the co-efficient of friction, which would produce uncertain and variable results. For short and simple tests, however, it appears to be well suited to the purpose.

Want "Trams" to Carry Cycles.

Over in England, they have just grasped the idea that it would be a "bully good thing" if only the "trams" could be induced to carry bicycles from town centres to the limits of congestion. It is gleefully pointed out that in this way, not simply would the cyclists' ends be served in that they would be well rid of the disagreeable task of riding over the bad pavement of the central portions of towns, but also, the effect would be to clear the streets of a very considerable amount of crowding traffic. An effort is being made to induce certain corporations to permit the carriage of cycles on their cars at low rates, and in some localities it is meeting with success. Strange, they do not recognize it as an American institution almost lost sight of since our better traffic control made city riding no longer a matter of personal danger to the cyclist.

The Bicycle in Panama.

The streets of Panama were paved by the American government, a five mile macadamized road to Sabanas was built by the American government, a three mile similar road was built to La Boca, and then came the bicycle," says a writer in the Pittsburg Post. "Never before had native eyes fallen upon such a contrivance. The jungle folks may waive much that civilization recommends, but they took to the bicycle as naturally as if it were something to drink. At first only Americans rode wheels. Now one sees only natives riding. The Americans, unused to the limited cycling territory, soon tire of their machines, and, like old hats and boots, they descended to Juan and his kitchen sweetheart.



has been the difficulty of arranging suitable tests. The apparatus necessary for a determination of the power of a motor, is if complete and accurate, too cumbersome for transportation from place to place, and too expensive for the user or dealer to care to handle. Even the prony brake, hitherto the simplest mechanical weigher of power, has been but little understood, and not at all appreciated in its true value. A device which has been brought out recently, however, bids fair to take its place for ordinary light testing where close results are not in demand, and in simplicity and cheapness of construction, as well as in its facility of application, puts even that time honored mechanism in the shade.

This device, known as the Sellers Dynamometer; which is the product of a London inventor of the same name, consists of nothing more than a lever fulcrumed near one end, and arranged to be pressed against the pulley of the machine, the power of which is to be measured by weighting the long end. Upon the end which is nearest the pulley, is mounted a small carriage which slides along the lever on rollers of suitable size and strength, coupled to which is a spring balance of the ordinary type which is anchored to the lever at a point

absorbed. It is a simple method of measuring the tangential pull at the rim of the pulley required to check its motion, or to absorb a certain amount of power, as the case may be, and consequently the formula used in connection with it is:

$$H. P. = \frac{W \times S}{33,000}$$

Where H. P.—horsepower, and W—the reading of the balance, and S—peripheral speed of the pulley. This factor, of course, is equal to the diameter of the pulley times the constant 3.1416, times the number of revolutions per minute.

As designed to be applied to motor vehicles, the brake is of light and handy construction, and may be utilized by bearing it against some part of the frame and resting the moveable block against the fly-wheel. In this way, the power of a motor may be tested at any time by simply ascertaining the speed of the crank shaft applying the brake, and reading the spring balance, when by consulting a table, the correct result may be obtained. The amount of force brought to bear on the end of the lever varies the amount of power absorbed, and is consequently alterable to suit conditions. The position of the fulcrum, other

Like the Yale-California motorcycle,

Yale and Snell Bicycles

have been

The Best Pleasure Promoters and Profit Payers

on the American Market.

The lines and prices are so comprehensive and the reputation of the goods has been so well sustained, that there is no man, woman or child to whom they do not appeal.

DO YOU SELL THEM?

CONSOLIDATED MANUFACTURING CO., Toledo, Ohio

MOTORCYCLISTS AND THEIR WAYS

They Induce a Repairman to Deliver Himself of Opinions and to Cite Some Instructive Instances.

"Yes, we repairmen have our troubles," recently remarked one of the fraternity who has taken up motorcycles on a large scale.

"There's about as much difference between repairing a bicycle and a motorcycle as there is between putting in a new spoke and shoeing a horse," he went on. "You see, the average man who rode a bicycle seldom attempted to do any repairs on his machine and what is more he seldom had enough interest in the thing or ambition to find out how it was done. It was merely a case of 'Put a new spoke in that rear wheel for me' or something of that kind and he didn't care what method was taken to accomplish it as long as the result was a good job.

"But take the average man who owns a motorcycle and you'd be surprised to find out how many young fellows who never even rode a bicycle before are being converted—and in less than a month he thinks he knows it all. It used to try my patience to have them come in here with a 'lame duck' and tell me the carburetter was out of adjustment or the battery was dead and that I was to do such and such a thing to the machine, cock sure, of course, that they knew exactly what the trouble was and that the treatment they prescribed would set things right.

"At first I made it a custom to show such chaps how far wrong they were, and some of them appreciated it, but not the majority of them, by a long shot. Even after I got through looking over the machine and found that the cause of the trouble was something totally different, they were still just as sure that their idea of the matter was the correct one, so I came to the conclusion that my philanthropic plan of educating the motorcyclist to know his own machine was worse than a waste of time and I gave it up. Giving free lessons was contrary to business principles, anyhow, but I've always taken a great interest in motorcycles and the more riders that I am able to interest in it, the better it is for my business.

"I still do so, of course, but by this time I know the fellows that I can talk to and quite a few of them have profited by the lessons. For instance, a young fellow came in here not long ago with a good machine but he was certainly in a pretty disgusted mood. 'Couldn't get the old thing going no how,' he said. It had run all right that morning, but later he couldn't get more than a semi-occasional bark out of it and he was sure the carburetter was at fault and asked me to take it down. That was just about the time I had come to the conclusion that giving free lessons was too

much of a good thing, and decided to quit it. I noticed that some of the fellows I had helped out of difficulties several times had learned their lessons so well that I no longer saw much of them.

"So I took this one at his word and immediately proceeded to take the carburetter down, though for the life of me, if he was so cocksure that the trouble was to be found there I don't see why he hadn't done it himself as he had about the most complete kit of tools I have even seen on a machine. In a way the carburetter was responsible. It didn't make any gas because it had nothing to make it out of—it was empty and my man regarded this as a confirmation of his theory. 'I told you so' he chirped the first thing. I didn't say anything but took off the tank stopper and

still that is one of the peculiar things about that type of rider. They are not anxious to be shown and most of them think they know better even after you have done what would be more than sufficient to cause any ordinary man to realize that he had been taken down a point or two. So I say the lack of appreciation on the part of the 'know-it-all' type of motorcyclist, not to mention the fact that it was time and money thrown away, made me decide to give up the philanthropy business. If a man comes to me now and says his machine won't run because the carburetter is standing on its head and instructs me to take it down and clean it, I simply obey orders and charge for my time. I haven't quite got over the advice business yet, for if a motorcyclist doesn't carry the thing too far and is willing to admit that he doesn't know what he is about when the machine fails to run after his repair directions have been carried out, I'm usually willing to overlook the first break and gently show him how far wrong he really was in his diagnosis.

"No, I'm not infallible by any means. I get stumped myself every now and again, but when a man comes to me with his machine and simply says put it in good running order without trying to give a catalogue of directions, why that's how he gets it back. But speaking of being stumped reminds me of a fellow who came in here only a short time ago. He admitted right off that he 'was up a tree' although he thought he knew something about a motorcycle, and it's no discredit to say that I myself was mightily puzzled for a time. We put the machine on the stand and it not only started without the slightest trouble but it ran O K except that its bark wasn't very husky and the funny thing about it was that cutting out the muffler didn't make a particle or difference either in the running or the sound produced.

"After trying her on the stand a dozen times or more without much satisfaction, I took the machine out on the street again but things were no better. The engine would run all right, but it developed so little power that the pedals had to be resorted to even on a level street. It was one of those 'fix it up while you wait' jobs. The fellow thought he could have it looked over and made right in a few minutes, so of course I didn't suggest taking it to pieces. I was about at the end of my rope when it struck me all of a heap to find out if he had been doing any amateur tinkering on it himself and sure enough, that was the proper clue. He said he had put a new asbestos gasket between the exhaust pipe and the cylinder where the two join and that ever since the machine had run or failed to run just as I had seen it do for the half hour or more previous. Another thing I have learned in my experience is never to ask a man fool questions no matter how much of a novice he appears to be. Personally, there's nothing



NEW YORK BRANCH 214-216 WEST 47TH ST.

the trouble was apparent the moment I began to unscrew it. The air hissed as it rushed in and with a sort of sigh filled it when I lifted the stopper off.

"Of course, the gasoline immediately began to run into the carburetter and when I put it together again the machine started off without a hitch. I tried a fine piece of wire on the vent of the stopper to clean it, but there was no result, so I finally had to hold the stopper in the flame of a blow torch and out came some sealing wax. I asked the young fellow if he was in the habit of sealing his love letters over the gasoline tank of his machine, but he was equally puzzled to know how it had gotten there. I found out not very long after that he was one of the know-it-all type of the very deepest dye and that his friends had put up a joke on him. One of them prepared the stopper in advance and had no difficulty in substituting the plugged one, while the owner wasn't looking.

"Well, he wasn't quite so sure that the carburetter was to blame after that, but

that riles me quite so much or so quickly as to have a string of asinine questions fired at me, so I refrain.

"But that doesn't prevent me from thinking of them just the same and the first thing that struck me was whether my amateur repair friend had taken the trouble to cut a hole in the asbestos gasket for the exhaust to pass out. I didn't ask him that, but got to work and took the pipe off and was considerably disappointed to find nothing of the kind. It was as neat a job as if I had done it myself and the hole corresponding with the pipe leading to the muffler was as true and circular as if it had been cut with a die. Then just out of curiosity I put the end of the pipe in my mouth and tried to blow down it but it was hard work and the cut-out which was half-way down the pipe didn't make a particle of difference in the result. The rest was easy. The muffler was removed and to that end of the pipe the tube from a powerful air-pump was applied. It was wrapped with tire tape until too large to enter the opening at its upper end and by pressing this against the pipe an almost air-tight joint was secured.

"It took considerable pumping before anything moved and then the obstruction came out on the fly. No less than three pieces of asbestos which fitted the bore of the pipe as if they had been cut for it with a die. The owner of the machine looked surprised to think that we should regard such a small thing as being responsible for all his trouble. He had taken a piece of asbestos and laid it on the flange of the pipe and cut around it and then made the opening by following an impression made by pressing the asbestos hard on the pipe. And it never struck him that there might be anything to the muffler besides a tin strainer so he let the piece fall into the pipe, thinking it would be blown out by the explosions. There were three pieces, he explained, because he had repeated the job three times before he was entirely satisfied with the result. If his knowledge of the muffler had been on a par with his skill as a gasket cutter, the job would have been gilt edged, but as it

was, the three asbestos disks had lodged tightly in the bend of the exhaust just before it reached the cut-out, which explained why the operation of the latter did not alter the motor's running. The marvel to me was that the motor should have run at all with the tremendous back pressure that must have been generated at every explosion. You never saw a more pleased man when he rode off, all smiles, and with his machine working finely. This motorcycle repair business is a great business for meeting 58 varieties of man, I can assure you."

Pennsylvania to Require Red Tags.

Persons who own or operate automobiles in Pennsylvania after December 1st, the beginning of the fiscal year of the State Highway Department, will be required to display red enamel tags with white numerals and letters instead of blue tags, as at present. The new style of tags will be ready to issue in about thirty days, and in all other respects will be similar to that now issued by the department. A large portion of the revenue derived from licenses is being applied by Commissioner Hunter for the making of surveys for new roads throughout the State. So far this year there have been 13,500 licenses issued by the department. The State receives \$3 for each license, which goes to pay the cost of maintenance of the automobile division of the Highway Department, and for such expenses as Commissioner Hunter may incur in the improvement of public roads.

Protecting the Tri-Car Passenger.

An ingenious owner of a tricar has found that for a small outlay it is easy to render his passengers as comfortable as any in an automobile of the covered type. His machine is a fore car so that the diminutive Cape Cart hood, when raised, somewhat interferes with the view of the road ahead but this has been provided for by putting a good sized mica window in the back curtain. A plate glass windshield is also provided and either or both may be folded out of the way in small compass when not in use.

American Motorcyclists

are already well aware of the unrivalled comfort and quality of the world-famed

Imported Brooks Saddles

American Cyclists

now will have the opportunity to become acquainted. We have obtained control of the American sale of the full line of the Brooks saddles and to all riders able to appreciate the combination of

QUALITY, COMFORT STYLE AND DURABILITY

we recommend the



Brooks B17

There is no other saddle just like it or half so good.

Inquiries Invited.

JOBBER SUPPLIED

Hendee Mfg. Co., Springfield, Mass

PRODUCTS of our BICYCLE DEP'T

Frame Tubes

Fork Stems

Seat Masts

V and Flat Belt Rims for Motor Cycles

HANDLE BAR TUBING

MANUFACTURERS OF HIGH GRADE MATERIAL ONLY

SEAT POSTS

Fork Sides

Rear Forks

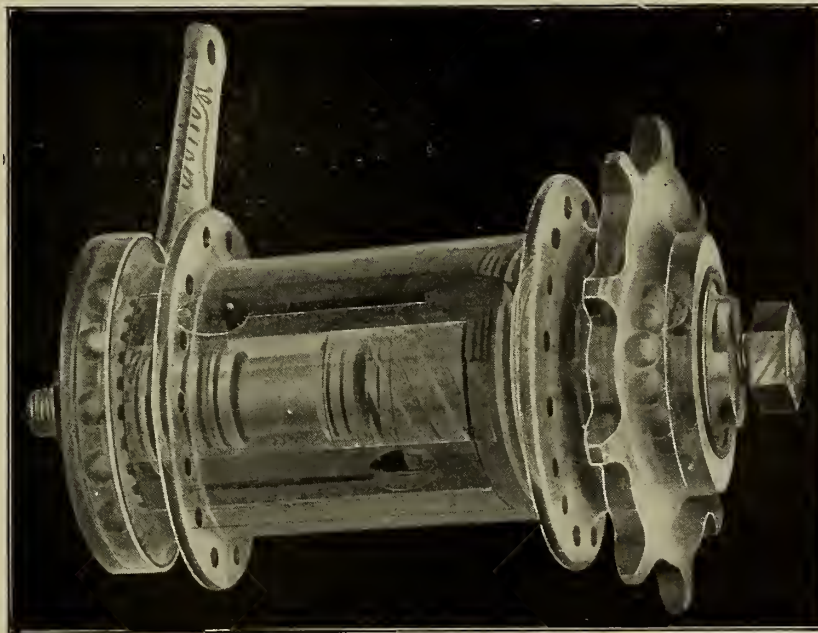
Rear Stays

THE STANDARD WELDING CO., CLEVELAND

ACCIDENT INSURANCE

THE MORROW Coaster Brake

is an insurance investment that should not be overlooked by bicyclists and motorcyclists, whether riding for pleasure or business.



Here is the experience of a well-known dealer:

"Allow me to tell you what I consider was a good test for your brake. I was driving a 1906 "Curtiss" single cylinder machine with two riders at the rate of about 30 miles an hour and just got to the top of a short steep knoll when I saw within 10 feet of us a young horse hitched to a buggy and on his hind legs and crosswise of the road. It was a case of stop or get smashed up as there was no room to pass and if ever one of your brakes got a test I think it did then as I set, with the result that it stopped the machine within about a foot of the rig and almost turned the machine around, it worked so well, never damaging the brake a particle. I have ridden Motorcycles for the past few years and this is the first brake that I have given anything like such a test without breaking something."

ECLIPSE MACHINE CO.,

Elmira, N. Y.

Do you
know, why the
N.S.U.
Motor-
cycle
is to be found
in every corner
of the
world?



Because
the
N.S.U.
Motor-
cycle
is equally reliable
in every climate
and on all kinds
of roads.

N. S. U. MOTORBICYCLE IN CHINA.

Write for Catalogue and Full Particulars

Dealers Write for Agency Terms

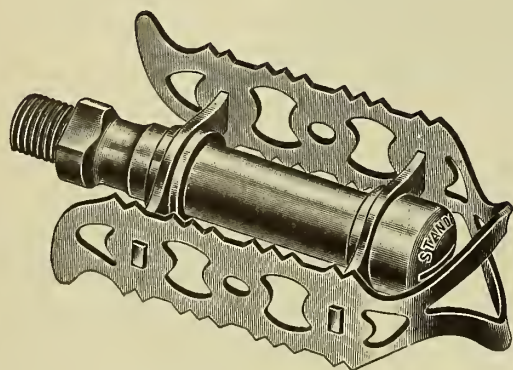
THE N. S. U. CYCLE & MOTOR CO., 78 Charlotte St., London, W.

PEDALS AND SPOKES

FOR EVERY MANUFACTURER WHO PRODUCES BICYCLES

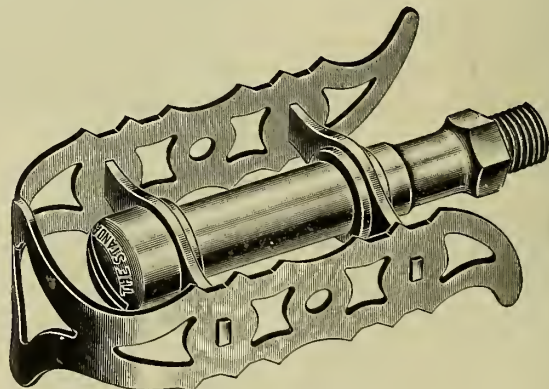
AND

For Every Man Who
Sells or Rides Them.



STANDARD JUVENILE NO. 2.

They are Pedals
and Spokes of the
Right Sort, too.



STANDARD NO. 1 RAT TRAP.

DIAMOND E SPOKES

QUOTATIONS ON REQUEST.

THE STANDARD COMPANY

Makers also of Standard Two-Speed Automatic Coaster Brake, and Star and Sager Toe Clips,
TORRINGTON, CONN.

THE BICYCLING WORLD and MOTORCYCLE REVIEW

FOUNDED 1877

Volume LIV.

New York, U. S. A., Saturday, October 6. 1906.

No. 2

EXPANSION OF THE EMBLEM

Quiet but Remarkable Rise of Youngest Member of the Cycle Trade—Is now Building Big Factory.

Although it has not been heralded by brass bands or red fire, one of the developments of recent years is the rise of the Emblem Mfg. Co., Angola, N. Y. It is not mere puffery to say that its growth has been not short of remarkable, for while W. G. Schaak, its creator and the active man in its affairs, is a veteran cycle tradesman, the Emblem Mfg. Co. is by far the youngest cycle manufacturing establishment in the country.

It was instituted only about five years ago when a declining market prevailed and when, while admiring Schaak's courage, most of those in the trade shook their heads ruefully. It is doubtful if very many of the skeptics are yet aware of the real extent of Schaak's success, so quietly has the Emblem progress been achieved, but from sources that do not admit of question, it is known that during the current year the Emblem output closely approximated 15,000 bicycles; as for credit, the company has come to be considered one of the most desirable risks in the industry.

Substantial evidence of this prosperity and of the determination to make further advance is now being reared in Angola. It is taking the form of a new three-story fire-proof factory building, 150 by 40 feet, only steel and concrete entering into its construction. Schaak himself has but just returned from a wide sweep of the Pacific Coast cities and when asked the result, he remarked in his quiet way that the new factory would have no idle moments. He already has sold more than the entire output of this season.

Pope Parcelling the Pacific Coast.

Since the Pope Mfg. Co. discontinued its branch in San Francisco, doubts have

existed as to just how its bicycles would be handled on the Pacific Coast. These doubts have now been removed as during the past month the Pope managers have been engaged in dividing the territory and apportioning the parts to the larger jobbers and dealers in some eight or ten of the more important cities. In San Francisco, a new dealer—F. C. Merry—who is, however, no stranger to the cycle trade, has secured the Pope plum for that city and vicinity and has "opened up" on Golden Gate avenue. P. H. Bernays, Pope's former manager, has gone into the real estate business and joined the ranks of the Los Angeles boomers.

Griffith Joins the Reading Standard.

A. E. Griffiths has been added to the traveling staff of the Reading Standard Cycle Mfg. Co., and already is "on the job." Griffiths had been for five years in the employ of E. J. Willis and knows the cycle trade thoroughly. He is one of the earnest sort whose interest in bicycles is not of the diluted nature and whose success as a salesman has been of corresponding measure. He knows motorcycles, too, and is therefore well fitted to render a good account of himself in the Reading Standard service.

Reliance Preparing to Remove.

The Reliance Motorcycle Mfg. Co. is now making ready for removal from Addison, N. Y., and expects to be in possession of its new plant in Elmira, N. Y., during the current month. With increased facilities and an enlarged output the Reliance people expect to prove a factor that must be reckoned with next season.

Chicago the Next Meeting Place.

The next meeting of the Cycle Manufacturers' Association has been fixed for the first Wednesday in November—the 6th. It will be held in the Auditorium Annex, Chicago.

COULD FIND NO JOBLOTS

Californian Discovered that the Market is Really Bare of that Sort of Thing—The Trade on the Coast.

"There's no doubt about it—the industry is clear of joblots and bargains," remarked W. L. Loos, who has been in the East for several weeks in the interests of John T. Bill & Co., the Los Angeles jobbers. He stopped over in New York for a day or two this week en route to his California home. "I had heard that there was nothing of the sort to be had," he continued, "but it was hard to believe it. I thought there must be 'something good' in that line to be found somewhere and it rather took me aback not to be able to find even a single bicycle that comes under that head."

Mr. Loos obtained for his house, however, a good slice of the Pacific Coast territory which the Pope Mfg. Co. has been parcelling out and this was, indeed, one of the chief purposes of his visit. He predicted that results would prove the wisdom of the Pope policy in thus decentralizing its business on the Coast. Loos confirmed the other reports of the splendid health of the cycle business in his part of the country and pointed to the fact that in Los Angeles with about 200,000 inhabitants some 86 cycle dealers and repairmen are still in existence.

"We don't try to hurt the business," he remarked. "We try to help it and as a result not very much of the cheap and nasty stuff is sold out our way."

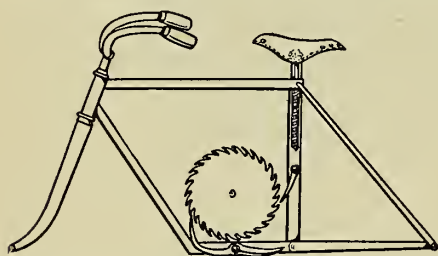
The market for motorcycles, he said, is measured only by the ability or inability of the manufacturers to supply them. The demand is such, indeed, that Bill & Co. are contemplating opening an exclusive motorcycle branch in Los Angeles.

Freeman Hinkley, manager of the Pope Mfg. Co.'s Boston branch, has resigned and retired from the Pope service.

AWAY WITH CRANKS AND PEDALS

Genius from Texas Shows how it May be Done—So Simple as to Make Motor-cycles Appear as Backnumbers!

Down in one of the smaller towns of Texas is an individual with a streak of flaming genius who has recently conceived a bold idea for the overthrowing of the present methods of bicycle propulsion in favor of one of his own. This he has presented to a prominent manufacturer together with a handsome offer to turn the invention over to him on a royalty basis, even going a step further and expressing his willingness to dispose of it outright—for a consideration, provided the said manufacturer will agree to commence its active exploitation forthwith. The idea is, in a word, merely another phase of the old desire to get out



of a machine a wee bit more power than is put into it.

The design presented with the inventor's offer depicts a new form of pedalless bicycle in which the energy of the rider is imparted to the driving wheel through the medium of simple mechanism set in train by the natural action of sitting down and rising again. That is to say, astride an ordinary saddle, and with his feet placed upon pedal plates which are movable, as is the seat post, the rider simply exercises himself in the manner known to equestrians as "posting." Raising himself gradually by his legs, he lifts himself clear of the saddle, which at the same time rises with its post, under the impulse of the mechanism, his weight upon the pedals producing the necessary energy. Upon completing his half-cycle of movement, or rising to the full length of his leg, he at once resumes his seat, when his weight, now thrown upon the saddle, serves to continue the action of the mechanism, while the pedals, relieved of the weight, rise again in obedience to the device. Thus, by the exercise of a simple, natural and pleasant movement, the machine is propelled forward, while the rider's weight performs the real work of propulsion.

Considering for a moment the manner in which this happy scheme is developed, it will be seen from the accompanying illustration that a large toothed wheel is mounted within the frame above the position of the ordinary crank hanger and connected by suitable means with the driver. The teeth

are of ratchet form, and are struck by a pair of pawls, one of them being connected directly with the pedals, thus pushing upward as the rider stands upon the foot plates, while the other is a prolongation of the seat post, and is, therefore, influenced by the weight of the rider when he begins to sit down. A helical spring concealed within the seat post mast, serves to lift the saddle and its post as soon as the weight is transferred to the pedal plates, thus enabling the pawl to take a new hold. Obviously, there is absolutely no limitation to the length of stroke, within the measure of the rider's ability, and he may take as long or short strides as he pleases, governing their frequency according to the rate at which he desires to travel.

By suitable means, the toothed wheel is connected with the driving wheel of the bicycle, and the ratio of gearing may be set to suit the fancy and ability of the rider. For hill-climbing and other heavy work where the weight of the rider might not be sufficient to secure the necessary force, a set of toe-straps are provided, by means of which the rider may pull himself down and thereby increase his power very materially. Whether or not, a similar method of strapping enables the rider to increase his power on the other stroke is not stated in the specifications, but evidently the thing is perfectly feasible. The mechanism employed is simple and effective, the amount of variety which it permits is not as conducive to weariness as is that of the ordinary pedal system and there is nothing about it to become in any way deranged, yet if some mishap should occur, it is so simple in principle that it could be repaired easily by almost anyone—these, please understand, being among the few "advantages" claimed by the Texas genius for his device.

To Tell Stretch from Slack.

In order to determine whether a chain which has been running loose is simply slack from a poor adjustment, or has stretched and lost its pitch, it is necessary simply to hold it taut between the thumb and forefinger of each hand and work it back and forth. If it is stretched, the pitch will have been altered to such an extent that it will be slack on the teeth, and will be capable of forward and backward motion to a slight extent. If it simply is slack, it still will be a perfect fit on the sprocket, and the slackness will be noticed in the form of sag between the sprockets.

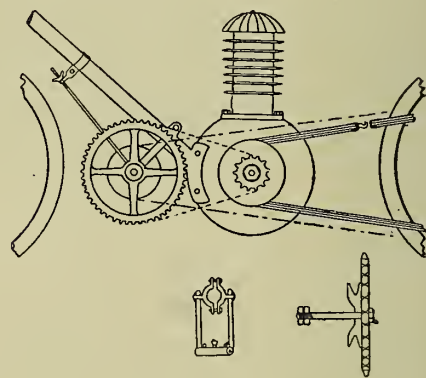
German Plant Pays 17 Per Cent.

That prosperity continues to shine on German manufacturers of bicycles in no uncertain manner is evident from the report that the Wanderer Cycle Works of Schoenau, one of the largest corporations in the business, will again declare a dividend of 17 per cent. This amount was paid the stockholders last year and it is said that present prospects are even far better than they were then.

HOMEMADE TWO-SPEED GEAR

It is Simple Enough but When You Meet a High Hill You Must Stop and do a Few Things.

In few other particulars does foreign practice in the building of motorcycles differ so radically from those turned out in this country as in the use of speed gears. The British market in particular is flooded with dozens of types of planetary and straight reduction gears designed for the use of the motorcyclist and numerous makers of machines have adopted one form or another as a standard part of their equipment. In this country the manufacturer who believes such an accessory necessary—



its first cost is high by the way—has yet to uncover his light.

But while the necessity of a machine thus equipped is very slight for ordinary riding there are times if not conditions under which something of this nature would be an aid to the rider. One of those ingenious individuals who are handy at devising such things has set forth his views in a foreign print and at the same time shows how he constructed a simple two-speed gear that serves the purpose well despite its limitations and which has the advantage of being constructed at a nominal cost beside the added merit of ready adaptability to most existing machines of the belt driven type.

"Taking my own experience as a guide," he says, "I find that on some days I never have any occasion to use a lower speed than is provided by the ordinary standard gear. On other days I want a lower gear, once, twice or a half dozen times in extreme cases, and as I only have an engine rated at $2\frac{3}{4}$ horsepower to propel a load of about a quarter of a ton with an engine gear of 5 to 1 on a $28\frac{1}{2}$ -inch rear wheel, mine is an extreme case in favor of the two-speed gear.

"With a modern machine of fair power a rider should not grudge a couple of minutes spent in dismounting to alter his gear, and, bearing this in mind, I have designed the simple little countershaft shown in the

accompanying sketch and which can be made by any mechanical amateur at a very slight outlay. It consists of the small sprocket such as is used on the ordinary safety bicycle and a larger sprocket for which the front one of a bicycle may be utilized. These, with the short length of bicycle chain necessary to connect them up as shown should not cost more than a dollar, while the extra length of belt needed together with the special fasteners should cost very little. The remainder of the gear consists of a duplicate engine belt pulley and a bracket to attach this and the large sprocket to the frame.

"Except when the low gear is wanted it runs idle and out of action and its only connection with the remainder of the mechanism is the chain on the two sprockets. When its services are required it is necessary to dismount, unhook the belt, as shown. The short extra piece of belt already referred to and which is cut exactly of the right length to fill the gap between the two pulleys is then inserted and the change is complete. A description of the operation takes more time and seems more complicated than it is in actual practice."

Proof of the Pudding.

"My attention has been called to a letter in a recent issue illustrating the pitch of excellence to which the modern 'all British' motorcycle has been brought," writes a correspondent in an English contemporary, who subscribes himself "British Workmanship."

"I take the liberty of submitting to you my experience during the last six months. During the aforesaid period I have ridden my 5-6 horsepower — some fifty miles and pushed it about 200 with no trouble to speak of, except the following: Exhaust valve lifter broke repeatedly, inlet valve cotters did ditto, exhaust pipe fell off, accumulator plates broke loose, back mud-guard got mixed up with wheel, front forks bent owing to collision with cab, owing in its turn to failure of exhaust valve lifter and violent overheating of the engine preventing the switch from having any effect, accumulator box fouling pedal chain, etc., etc., ad lib.

"I cannot speak too highly of the — belt. This carried me from my residence nearly to Hammersmith Bridge, a distance of, I should say, nearly three miles. Then owing to the back cylinder suddenly beginning to fire (a proceeding as rare as it was unexpected) the belt unfortunately broke in three places. This same incident proved fatal to the back tire, removing the tread and bursting the beading.

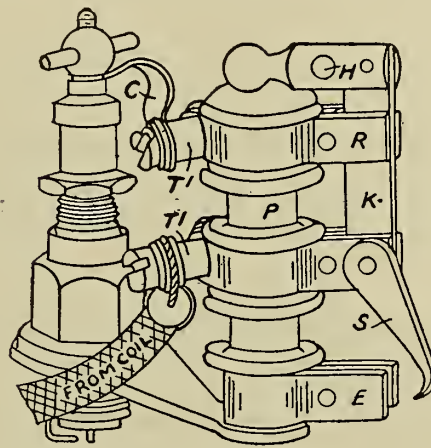
"I must also express admiration for the band brake on the back wheel, which I can honestly say has not deteriorated in the slightest, notwithstanding the distance covered; it was absolutely useless from the first. I am happy to say that I am in no way financially interested in the —."

TO TEST PLUG AND CURRENT

An Ingenious Device that Performs that Double Service Without Removing Plug from Cylinder—How it Operates.

A novel form of spark plug and ignition current tester, recalling the short-lived popularity of the series spark gap, yet evidently "going it one better," has just been brought out by a Mr. Bourne-Dale, of Manchester, England. Unlike the series gap, however, which was fixed for all time, this device may be used either in series or parallel with the ignition current, and may be varied at will in potentiality, its object being simply that of a tester, and not at all an intensifier in its ordinary application.

Mechanically, it consists as here illustrated, of an insulated post mounted on a



small bracket affixed to the ordinary plug, and connecting with it at the top. Between three sets of collars which are formed of the insulating body of the post, are set three rings of conducting material, those at the top and bottom thus being in communication with the plug and the ground through the cylinder head, respectively, while that in the centre is insulated from them and connected with the coil or magneto. By means of a pair of knife switches, connection may be made with either top or bottom ends of the post, thus permitting the utilization of the device either in series with or parallel to the main circuit.

Thus, when the switch K is closed, the entire current flows through it and reaches the plug in the ordinary manner. If, for any reason, it is desired to see whether the current is producing a spark within the cylinder, the finger of the second switch S, is brought down near to the blades, E. If a spark occurs under these circumstances outside the cylinder, it is proof positive that one is also being produced within. For if the points of the plug were short-circuited, then no difference of potential would exist between the switch E and its socket, and no spark would occur. By this means it is possible not simply to tell whether the plug is yielding a spark, without removing it from the motor, but also, the

intensity of the flame may be judged to a nicety. Failure to obtain a spark at either point, of course, indicates a lack of current.

In this way it is possible to test the working of the plug in any one of a number of conclusive ways, without removing it from the cylinder, and without stopping the motor or altering the load. Moreover, by judicious use of the series switch, it frequently is possible to clear a plug which has become slightly fouled, in the manner so well exploited at the time of the introduction of the series gap, referred to above.

To Clean Out the Carbon.

Whether it be due to the care given them or rather lack of it, or whether it is an inherent peculiarity of some motors, cannot be said, but the fact remains that some are far more prone to give trouble through the accumulation of soot in the valve passages and top of the piston head than others. If permitted to continue for a sufficient length of time the condition of the engine will become such that nothing short of dismantling the cylinders will prove an adequate remedy. But this is no small undertaking and it is one moreover that the average motorist who takes care of his own car would prefer to avoid if possible, so that those who have been troubled in this way will doubtless hail the discovery of a chemist who has found that hyposulphate of soda will dissolve this carbon with considerable satisfaction.

This material is as common and almost as cheap as ordinary salt. It is used in the shape of a saturated solution of the soda with water and according to the authority responsible for the discovery it is said to dissolve the deposits without oxidizing or in any way harming the walls of the cylinder.

Corsets Supplied the Contact Blade.

"Getting there" is not always due to mechanical skill by any means. A knowledge of what is necessary to correct the trouble flavored with a little common sense and backed with a modicum of ingenuity will work wonders. In support of this view there may be cited the case of the motorist who found himself a long way from facilities of any kind with a broken contact blade. Progress was imperative but it was simply impossible without a replacement or a substitute. The nearest blacksmith shop was appealed to for aid but its proprietor grouchy informed the inquirer that he had no such steel as was required. The motorist, not at a loss, asked him if his wife wore stays. He was not sure but thought she did, whereupon the lady was reluctantly interviewed. She was persuaded to sacrifice one of the stiffeners of an old pair of corsets in a good cause and the motorist with such facilities as the blacksmith shop afforded managed to fashion a jury contact blade from a piece of the flat spring steel, even to the replacement of the platinum point from the broken blade in the new one.

A Demonstration of Our Claims of Durability of the National

A few days ago we received from one of our old customers a National, which he had sold in 1896, and which had been in continuous service ever since.

He sent it to us as a sample of National durability.

After it had been ridden over 17,000 miles, its owner decided to try for the 300 and 400 mile records, and succeeded in breaking both of them.

This bicycle has been ridden over 50,000 miles and contains the bearings which were sent out in it originally.

The cups and cones to-day are as bright and free from blemish as when new.

It's good for another 50,000 miles, but we will keep it as tangible evidence of results from using good materials.

There are thousands of Nationals just like this one.

Nationals to-day are made from the same quality of materials.

We have always been believers in good bicycles, and as every machine we make carries our trade mark, we cannot afford to cheapen their construction.

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NEW YORK, OCTOBER 6, 1906.

Why Not an Export Committee?

Great Britain's exportation of cycles and cycle wares, and Germany's, are still attaining relatively phenomenal proportions. There is no symptom of a let-up of the great growth that has marked the past several years. In August last, the United Kingdom's foreign trade exceeded a valuation of \$550,000. During the same period, the United States's cycle exports attained a value less than \$92,000.

The Bicycling World has, on so many previous occasions, brought these "deadly parallels" to bear on this department of the industry that it would seem that they should have in some way served to quicken the energies or interests of those most vitally concerned.

Failure in that direction may have been due to lack of organization, on the principle that "what is everybody's business is nobody's business." But now that two live associations of manufacturers are in being and that a community of interest really pervades the trade, it would seem that concerted action of some sort looking toward a betterment of the export situation is well within the realm of possibility. The suggestion of a joint conference of the two organizations with that end in view

already has been advanced, but if it is undesirable or not feasible, surely there is room and need for the appointment of what, for want of a better term, may be styled an export committee. And probably the designation of a few earnest men to handle the subject would hold more promise of actual achievement than if it were taken up and considered at a general meeting. It is the sort of work that would add to the usefulness of the two associations and serve to satisfactorily answer the time-worn query, What do we get for our money? At the present moment it is not to be denied that there are members of both bodies who have expressed the opinion that "jobbing bicycles," in which they have little or no interest, appear to constitute too much the chief purpose or discussions of the meetings.

If Great Britain and Germany each are able to amass export trade to the value of a half-million dollars monthly, it proves that the business is there and that if the ways and means are devised, the United States can obtain a larger share of foreign trade than falls to its lot.

To "Win Back" the Women.

It frequently has been said that if woman-kind were but "won back" to cycling, man-kind would quickly follow. And there is a good deal of truth in the assertion. How to bring about such a movement is a question which is far easier to ask than to answer. For however tumultuous may be the flood tide of feminine appreciation, once it has been turned in a given direction, its own inertia, coupled with the manifold attractions of every conceivable sort which draw it away from outdoor pastimes, make its guidance a task well up to the limit of human capability. Yet what an individual cannot do, a community of interests may accomplish with ease.

Thus, speaking casually and before the results of the event have become known, it would appear that the promoters of the French "promenade" referred to in another column, were reaching in a helpful direction. Like the music hall dances, ladies get in free, ladies with escorts, at half price, while men alone are taxed to the full value of the card. Here in the beginning is an appeal to man's economics which should not fail to find response. But this is not all, for each participant is to carry a camera and at the end of the run is to submit a half-dozen pictures together with a per-

sonal account of the incidents which have taken place.

This idea combines novelty, sociability and interest in a happy way and should be the means of bringing again into cycling not a few fair "backsliders" and in promoting the desired end generally. For it is a frequent remark of former wheelwomen that they would cycle again if they but had someone with whom to cycle. Companionship is what they lack.

For the Short-Legged Man.

One of the earliest complaints brought to bear against American motor bicycles was lodged by the men with short legs: the frames were so high as to prohibit their use or at any rate use of them entailed no little personal discomfort. Since then, some frames have been "chopped down" but, generally speaking, the old complaint still holds good.

The short-legged chap is, perforce, still at a disadvantage. He cannot get a mount that fits him, or at best, he must put up with a hard or a small saddle which does not serve to make his way easier. For motorcycle saddles are of generous proportions and are built so high that they are not for the little man. The situation is recalled by the plaint of a prominent cyclist who recently "went over" to the motor bicycle. Nature had not blessed him with long shanks and much against his will, he was obliged to go abroad for his mount—a state of affairs that should not be permitted to long remain.

The item is one that American motorcycle manufacturers—also saddle makers—may profitably note in their memorandum books. The number of little fellows in existence in this country is not inconsiderable.

The Oakland (California) way of suppressing the open muffler nuisance is one sure way. After two or three more of those motorcyclists who disturb the public peace, hurt the game and invite accident, simply because they "like the noise," pay \$50 each, the remainder of the pop-gun class may decide that the sport or the pleasure is too expensive.

"Appearances are deceitful" but so are disappearances, wailed the cycle thief when he found that he had annexed a machine which had long since seen its best days.

EXPORTS SHOW IMPROVEMENT

Returns for August Disclose Gains in Many Directions—United Kingdom, Japan and Mexico the Biggest Buyers.

Following the example set by July, the export returns for the month of August show an even greater increase as compared with the same month of the previous year, while the totals for July and August of the present year are but a few hundred dollars apart.

The increase over August a year ago is \$21,721, or from \$70,092 to \$91,813 and with the exception of the item representing the total sent to the United Kingdom which jumped from \$6,628 to \$18,568, the advance is constituted of items which have for a long period past exhibited a consistent decline, while those which have been steadily on the increase now show a marked falling off.

Prominent in the former class may be cited Japan which showed a substantial increase in July of the present year for the first time in many months. During August its takings again advanced—from \$8,665 to \$24,458. To a certain extent this is also true of British Australasia which showed a loss in July but which in the present report is credited with \$8,677 as against \$5,967.

Mexico and the Argentine both show increases but such items as Other Europe, the Netherlands and the like that have been largely responsible for the steady upward climb of the annual totals for the past year or two have declined. The extent to which increases in these two items are responsible for swelling the annual totals is self-evident. The total for the periods of eight months ending in the past three years are \$1,296,701, \$1,005,374 and \$1,093,680, respectively.

The report in detail follows.

	August 1905	August 1906	Eight Months Ending 1904	August 1905	August 1906
Exported to:					
United Kingdom	\$6,628	\$18,568	\$199,753	\$174,978	\$212,120
Belgium	2,447	1,613	43,753	19,341	18,497
France	6,724	699	70,910	55,090	16,531
Germany	1,130	1,168	102,217	48,303	70,369
Italy	880	1,630	30,994	15,672	23,049
Netherlands	2,047	3,874	71,534	26,927	108,786
Other Europe	7,808	1,597	133,693	135,250	185,533
British North America	3,534	3,180	101,570	106,825	59,661
Mexico	6,142	11,764	29,403	40,728	79,853
Cuba	4,832	3,556	23,912	28,072	23,087
Other West Indies and Bermuda.....	1,126	1,320	22,316	18,305	14,080
Argentina	2,493	5,115	11,603	9,882	15,033
Brazil	885	631	9,879	4,391	6,776
Other South America	1,806	1,016	13,894	10,855	12,308
Japan	8,663	24,458	255,921	211,068	166,184
British Australasia	5,967	8,677	123,546	58,192	54,532
Other Asia and Oceania	4,795	1,985	39,676	35,933	16,246
Other Countries	2,185	926	12,127	5,562	11,035
Total.....	\$70,092	\$91,813	\$1,296,701	\$1,005,374	\$1,093,680

Celluloid as Insulating Varnish.

A very good form of insulating varnish for covering binding posts, lining battery boxes and other general uses about the machine, is said to be a solution of celluloid. This may be prepared by dissolving in acetone a number of small scraps of celluloid cut into bits. The solution thus made should be allowed to stand for several hours before use, at least a day being conducive to the best results, when it may be applied with a brush like any regular varnish. It dries almost instantaneously, is waterproof, a non-conductor of electricity, and permanent. It will adhere to wood and metals if clean, but will not adhere to glass or hard rubber. If it be required in colors, the desired tint may be obtained by dissolving bits of colored celluloid in the necessary proportions. It should be stirred frequently when in use.

Recovery of Steel Ball Industry.

German steel ball makers are said to be on the high road to recovery from the depression attendant upon the tremendous overproduction of a few years ago. The advent of the automobile is one of the causes that has contributed to this return of prosperity, although the greater measure of success that has attended the efforts of German makers in the business of exporting bicycles is also responsible. The dividends paid by some of the leading works are now in excess of 6 per cent.

Benson Goes West; Roe Moves Up.

E. S. Benson, manager of the Hartford Rubber Works Co.'s New York branch, having resigned that office and gone West to join the staff of J. D. Anderson, the new president of the G & J Tire Co., Indianapolis, E. S. Roe has been appointed to fill the vacancy. Roe's appointment is in the nature of deserved promotion as he has rendered signal service to the Hartford while in charge of their New York uptown store.

GIVING CUSTOMERS ADVICE

Why Frequently it is Good Policy Even Though it may Appear Turning Away Money—Reenameling an Instance.

Before he undertakes to do a job of enameling or nickel plating that he can guarantee his customer will be satisfactory, the repairman should take the precaution to look over the subject of the operation very carefully. Doing this in advance will save time and a wordy argument with the man who is expected to pay for the job, for the average individual expects that enameling and plating will constitute a mantle, which like that of charity, will cover a multitude of sins. Enameling will not make smooth unsightly dents or nicks in the tubing and these are what should be guarded against most. Call the attention of the owner of the machine to them and tell him in advance that no amount of enameling or plating will improve their appearance; they will always remain as blemishes in the completed article. There is a bit of policy involved in this pointing out obvious defects to the customer; some repairers avoid it sedulously because they fear that it means the possible loss of the job. The customer may come to the conclusion that the machine is not worth spending the money on.

But where in the opinion of the repairman this is the case, it is usually more profitable in the end to tell the owner so at the outset. It prevents him spending money on what will at best be nothing better than a half-way job and frequently earns his gratitude to the extent of investing in a new mount. Some repairers overdo this to such an extent that their ultimate gain in the discarding of the old mount is so apparent that the rider is suspicious and even if he does come to the conclusion that a new machine would be a far better investment in the end, he is apt to go somewhere else to get it.

Rubber Band as Inlet Spring.

Generally speaking when an inlet valve spring gives way and no extra one is at hand, the motor is supposed to be pretty well out of the running for the time being. One motorcyclist, however, who experienced this trouble recently, got out of the difficulty very neatly by the use of that most remote of all possibilities—a rubber band. Removing the broken parts of the spring and replacing the valve, he inserted in the cotter-pin hole a piece of stiff iron wire bent into a loop. Another loop of wire was attached to the upper tube directly above, and the two were connected by means of a stout rubber band. Surprising though it may seem, this subterfuge worked well enough to enable him to cover a stretch of several miles and bring him home without pedalling once. Of course, the wire hooked to the valve stem had to be wire on the valve had to be quite long so that the heat would not melt the rubber.

GARDEN CITY WERE BARRED

Say it was Because Other Clubs Fear Them
and now They are Mad—Bay City
Team Wins the Relay Race.

The fear which the Garden City Wheelmen of San José, Cal., believe they have instilled in the cyclists in that section of the country was manifest at the race meet held at the Alameda track on Sunday afternoon last, 30th ult. A dozen San José riders rode the forty-two miles between that city and Alameda with the intention of entering all the races. They were thunderstruck and then indignant when informed that they would be allowed to ride in only one race, and that a two-mile handicap, although the meet was an open one, and held under a sanction of the California Associated Cyclists, the body which is supposed to govern races in that State.

The action of the promoters of the meet aroused considerable indignation among San José cyclists and an explanation will be demanded, it is stated. The Garden City Wheelmen pay a yearly tribute for membership in the California Associated Cyclists, and it is in open violation to bar any member organization from an open race met held under sanction. The reason given was that the Garden City Wheelmen, some of whom have been riding with success at Salt Lake City the past season, were too fast for the other riders, a rather weak excuse.

The main event Sunday was a thirty-mile relay race, six men to a team, which was won by the New Century Wheelmen. Bay City finished second, Oakland third, and Central City of San Francisco fourth. In spite of the fact that they were barred from this race, L. Maggini, a San José man, started and rode four miles and quit only when Edwin Mohrig, who was referee, threatened to disqualify the Garden City men from riding in the two-mile event. The crowd hissed the action of Mohrig, as they wished to see the San José team ride.

The only race in which the San José riders were allowed to enter was a two-mile handicap and C. Chaboya, Dowie Byler and Willard Parsons, of the Garden City Wheelmen, all started with low handicaps. They quickly overhauled the long markers and finished as they pleased. Berryessa, of San José, started scratch in this race with McLaughlin, Lawrence and De Mara. He failed to catch his toe clip until the other scratch men had a start of 100 yards on him. Berryessa then got down to business and caught them at the finish of the first mile. McLaughlin made an effort to get onto the flying Garden City man's tire, but failed. The crack San Joséan kept going, went around the field of fifty men and crossed the tape alone in fourth place.

A five-mile motorcycle race was made up on the spot and seven riders started. Dryo,

astride an Indian, set the pace for two miles, when Lawrenson, riding a Duck, passed and won out handily. His time, 7:37, was fast, as the Alameda track was sandy and had little or no banking at the turns. The summaries:

Thirty-mile relay race, six men to the team, five miles each. First relay—Oakland, F. Black, 1; New Century, G. Williams, 2; Bay City, W. Steinman, 3; Central City, P. Elkington, 4. Second relay—Oakland, L. Eike, 1; Central City, M. Doyle, 2; New Century, C. Laye, 3; Bay City, W. de Mara, 4. Third relay—New Century, G. McGrath, 1; Oakland, S. Hancock, 2; Central City, J. A. Goetze, 3; Bay City, A. Daggett, 4. Fourth relay—New Century, C. Schiller, 1; Bay City, H. McPherson, 2; Central City, A. Carlson, 3; Oakland, H. Bente, 4. Fifth relay—Oakland, B. Bassett, 1; Bay City, D. Cushman, 2; Central City, F. French, 3; New Century, A. Wilkes, 4. Last relay—Parcy Lawrence, 1; Bay City, F. McLaughlin, 2; Oakland, A. White, 3; E. Peringe of the Central fell. Time, 1 hour 24 minutes 59 seconds.

Two-mile handicap—Won by C. Cheboya, Garden City Wheelmen (100 yards); second, J. D. Byler, Garden City Wheelmen (75 yards); third, W. Parsons, Garden City Wheelmen (75 yards). Time, 5:10.

One mile point race—Won by W. De Mara, Bay City Wheelmen, 10 points; second, A. Black, Oakland Wheelmen, 9 points; third, F. McLaughlin, Bay City Wheelmen, 5 points. Time, 2:32.

Five-mile motorcycle race—Won by Lawrensen (Duck); second, Dryo (Indian). Time, 7:37.

Motorcycle Tandem Goes to the Wall.

George W. Breed and C. R. Herrick, of San Diego, Cal., left that city on Saturday last on a five horsepower motorcycle, with tandem attachment, with the avowed intention of creating a record from California to Buffalo, N. Y. Their hopes were somewhat blasted and their intended "meteoric" flight delayed when at Escondido, on Monday, before they had gotten out of the Golden Gate State, they lost control of the machine and ran into a wall. Both men were thrown but not injured, but the damage to the motorcycle will cause a stoppage of two or three days.

Walthour Wins and Loses.

In the presence of 12,000 spectators, Robert J. Walthour was both the victor and the vanquished at Cologne, on September 23rd. The principal event, an hour's race behind small pacing machines, was won by the American after a superb fight against Guenther. During the hour Walthour covered 38.34 miles, Guenther, 36.85 miles and Guignard, 35.81 miles. Guignard won the 10-kilometre event in 12:05½, beating Guenther by nearly a mile. Walthour fell after the get-away and knew that it was useless to continue.

IS ANKLING A LOST ART?

Prevalence of "Digging at the Pedals"
Suggests the Affirmative—High Gears
Held to be Partly Responsible.

"Inability to pedal properly is no doubt the principle reason that drives the racing man to use straps or any other means of locking the feet to the pedals," says an authority who is well known in the game in dealing with the subject. "It is often lamented that pedalling is becoming a lost art, and certainly one seldom sees it attempted by any except those whose apprenticeship to bicycling was served on the machines in vogue some twenty years ago. There are many causes which have brought this about, and foremost among them we place the practice of starting one's cycling career with too high a gear. The untrained muscles of the novice, unfitted for the heavy work set them, induce their owner to resort to a digging action, sometimes accompanied by a lurching action of the shoulders, utterly antagonistic to anything savoring of correct style; and though the rider naturally improves with practice in every other respect, this digging at the pedals with ankles stiff and inflexible, will probably remain with him to the end. In the case of the racing man, the mischief is often increased by the fact that he takes up speed work with an abnormally high gear on the path or road before he has properly mastered the art of getting the most out of his machine for the power expended on it when riding at a moderate pace. His lack of ability to move his legs rapidly is made up for by furiously over-gearing and fastening his feet to the pedals. Such men are common enough on the path, but they rarely rank among the most successful, and after a season or two disappear from the ranks of the racing men for good. One has only to visit any race meeting to test the correctness of what we state. The exponents of the rigid ankle are legion, a few others show a better style, but most probably not one in twenty will display anything approaching good action, and among these last will no doubt be found the men who have a winning reputation behind them. It is no finicking dandyism that prompts a man to study ankle action and the art of correct pedalling, but appreciation of the fact that it tends to the economy of muscular effort; and, as such means increased ease and comfort in the saddle, it should be the object sought after by every user of a bicycle."

In an exciting five-mile motorcycle race at the State fair grounds at Spokane, Washington, on Saturday, 29th ult., A. A. Alexander, captured first place from Robert Warren by less than a length. C. W. Miller finished third, R. A. Moore fourth, and F. Z. Lance fifth. The time was not given.

PARIS SEES A SIX DAYS RACE

Thirteen Teams Contend and Attempts at
Lap-Stealing Rouse the Big Crowd—
Results of the First Day.

When the last mail from Paris reached here France was having its first six-day race, run on the same plan as the annual Madison Square Garden grind. The race is being held at the Velodrome Bazacle, at Toulouse. Nearly 15,000 persons gathered to see the start on September 24th, at 10 p. m., and thirteen teams started in the long grind. As in all six-day races, the riders started off with a great sprint and shortly after the first mile Pietroy was lapped. Egeldinger went out for a lap and after a heartbreaking ride was compelled to drop back with the bunch. Before Egeldinger had time to recover Gauban jumped and gained 100 yards. The sprint lasted for ten minutes and the crowd went as "crazy" as any six-day crowd ever did. At the ending of the first hour 34 kilometres 154 metres had been covered by the leaders—Gauban, Thuau and Georget leading the procession.

After the pistol announced the first hour Gauban dismounted and was relieved by his team-mate, Germain, who immediately started up a sprint which lasted for several minutes before things settled down. Pietroy was the only rider to lose laps, and at one and one-half hours he was 10 behind. Shortly before the end of the second hour Emil Georget and Landrieux attempted to steal a lap and had gained over a hundred yards before they were pulled down. As the pace increased the riders relieved each other frequently. At the end of the hour Germain jumped and tried to gain a lap while the crowd rose to their feet and yelled approval. He was unsuccessful and after he was overhauled thanked the crowd for their demonstration and sang a funny song, which set the crowd laughing. When the score for the second hour was posted it was found that 32 kilometres 480 metres had been ridden during the second sixty minutes and all the teams were on even terms except Pietroy.

There were many attempts at lap stealing through the night and the greater part of the crowd remained until morning. Early in the morning Georget and Vanoni, who had developed extraordinary staying powers, started out together to gain laps and the pace was so fast that only Landrieux and Germain were able to follow, all the other teams losing laps. At the sixth hour three teams—Georget Brothers, Vanoni-Thuau, and Watelier-Landrieux—were on even terms, Germain-Gauban were one lap behind, Duffis-Delegarde three laps and Grégory-Payan six laps. Germain had fallen asleep and lost his lap and he made a good effort to regain it but was unsuccessful. Thuau plainly showed the marks

of the hard fight and dismounted frequently, leaving the brunt of the work on Vanoni. The American-Swiss-Italian-Frenchman, who was put out of New York's last six-day race when Gougoltz was injured, dug to his task without a grumble but it was plain to see that even his endurance would soon reach the limit as Thuau did not pluck up courage to do a part of the work. Georget Brothers and Germain had developed unexpected endurance and looked like winners. Following the quitting of Sain and Guiraud early in the morning, Egeldinger and Pietroy formed a new team.

The eighteenth hour was marked by the quitting of Sansever and Piechier. In the nineteenth Chartier and Delegarde started a sprint and both came together on one of the turns. Delegarde fell heavily on his head and had to be carried off the track on a stretcher, and his team mate, Doffis, quit. Thuau, completely tired out, was lapped several times during the twentieth hour, and Vanoni began to weary from his efforts, as he was doing most of the riding and so far had not lost a lap. At the twenty-first hour Georget Brothers and Landrieux-Wattelier were one lap ahead of Germain-Gauban and had gained 18 laps on the Vanoni-Thuau team. All the others had lost laps. Grégory won the 24-hour sprint prize and fell just after crossing the tape, but Payan relieved quickly and the team did not lose any laps. At the end of twenty-four hours 445 miles 99 yards had been covered by the leaders. The six-day record for that time is 510 miles 176 yards made by Floyd McFarland and the late Harry Elkes in 1901. In last year's race in Madison Square Garden the leaders at that hour, covered 451½ miles, so that it is seen that the Frenchmen are not doing so badly upon their first attempt. The score at 24 hours follows:

Score—24 Hours.

Pos.	Team.	Miles.	Yds.
1.	Georget Brothers.....	445	99
2.	Wattelier-Landrieux.....	445	99
3.	Gauban-Germain.....	444	1605
4.	Payan-Grégory.....	444	1605
5.	Gombelle-Granier.....	439	785
6.	Mercier-Bonfanti.....	437	1659
7.	Soulié-Chartier.....	437	771
8.	Vanoni-Thuau.....	436	1438
9.	Habert-Poiry.....	412	88
10.	Pietroy-Egeldinger.....	399	781

For the Promotion of Sociability.

Under the title of a "promenade" French motorcyclists, or at least those of them resident in Paris, have organized an event for October 6 and 7 that is practically a two days' outing on lines that should appeal to others interested in the sport. The run is limited to tri-cars and quadricycles of whatever sort or type, provided they have a capacity of two persons. It is, in fact, to be a two days' picnic and in order to make things more enjoyable a premium is put on the participation of the gentler sex.

The entry fee for a car with a male driver and carrying a male passenger is \$2;

where the passenger is of the other sex this is cut in half and where both wear skirts there is no fee. The route is from Paris to Compeigne and return and each driver must carry a camera with him. Upon his return he must write an account of the outing accompanied by six photographs taken en route. These will be submitted to a jury who will pass upon the literary and artistic merits of the productions of the various competitors.

The Man Who Makes "Short Cuts."

While riding close to the curb in the city or next to the foot path in the country it is wise to keep a sharp lookout for people on foot going in the same direction. Human nature is perverse and in many instances this takes the form of an objection to utilizing the crossings made for that purpose to get on the other side of the street.

The average individual, be it man, woman or boy, prefers "to cut across lots" and in so doing is apt to walk directly into the path of anything approaching from behind and near the curb. Many people likewise walk in their sleep even though their eyes be open and they otherwise have every appearance of being awake and in their normal senses. They are in a brown study, in other words, and utterly unconscious of what is taking place around them. Some men are given to this form of mental meandering while awheel and when the one who is about to depart from the sidewalk at a point in the middle of the block while thus engrossed and a cyclist similarly situated come together, it is a case of Greek meeting Greek.

Graveyard Yarn from Abroad.

One of the most curious results of the widespread adoption of the bicycle by all classes in England is said to be the demand for space in favorite graveyards. There are people who "fall in love," so to speak, with pretty rural graveyards, and that to such an extent that they arrange to be buried in them, and the bicycle is one of those improvements to road locomotion that has greatly increased the number of such people. Perivale and Stoke Poges are rural burying places that are cited as examples of the foregoing and it is said that many a new headstone has been added to their collection that covers a cyclist who "discovered" them and then and there made up his mind that he had found the site of his last resting place.

Gustafson First in Motorcycle Event.

Charles Gustafson, Jr., riding a 2½ horsepower R-S, won the five-mile motorcycle race that was given a place on the program at the automobile meeting held on the half-mile Shillington track near Reading, Pa., on Saturday last, 29th inst. William Bewly, also on a R-S, finished second. Gustafson covered the distance in 8:04.

KRAMER AND CAMERON THE STARS

The One "Makes Good" Behind Pace, the Other Becomes Mile Amateur Champion—Football as a Sideshow.

Bicycling and Gaelic football was the mixture served out at the Vailsburg board track last Sunday and although the fans who have been witnessing nothing but cycle races at the historic track for the last decade did not seem to mind the encroachment upon their favorite sport, it was easily seen in which direction the enthusiasm was directed and served as conclusive proof that bicycle racing is the peer of all sports. Although several brilliant plays were made in the football game, not once was the volume of applause as great as when Frank Kramer, the national champion, signaled his debut in the ranks of pace followers by trouncing James F. Moran, rated as one of the best pace followers in this country; when George Cameron, of the New York Athletic Club, won the one mile national amateur championship or when Watson J. Kluczek, the undefeated amateur pursuit rider, defeated seven of his fellow pluggers in an unlimited distance race. In each case the bicycle races drew the most genuine applause. On account of the threatening weather the crowd was not so large as that on the previous Sunday, but it was estimated that at least 4,000 spectators filled the seats. Each event was a feature and no single one outshone the other.

George Cameron, the old-timer of the New York Athletic Club, materially increased his points in the championship table when he jumped away and won the final heat of the one mile amateur championship. Cameron, Zanes, Sherwood and McDonald had qualified for the final heat, and the riders jockeyed for three laps. At the bell Zanes and Sherwood were busily watching each other and George Cameron took a notion to leave them far behind. He jumped and before the other riders could get into stride the Mercury Footer had gained a substantial lead. Cameron led all the way and the others were unable to overhaul him before he crossed the tape a winner by six open lengths. Sherwood finished second, Zanes third and McDonald fourth. The result was somewhat of a surprise, as Sherwood, also of the N. Y. A. C., had become to be regarded as almost invincible. Sherwood still leads in the point table with 20, and unless he gets shut out in the heats of next Sunday's race—a quarter-mile and the last of the series—which is not at all likely, Sherwood will be acclaimed the American amateur champion for the present year. Should Sherwood be unplaced in the trial heats of the last race, however, and should Cameron win, these two riders would tie for the honor as Cameron now has 15 points. None of the other riders even figure, as Zanes and Kluczek are tied

for third place with only five points each.

Watson J. Kluczek clearly showed that he has not an equal at unpaced riding in the East, by winning the unlimited pursuit in 3 miles 1 lap. Eight riders started in the race and they drew for start positions. Thomas Smith, Sherwood, Ferrari, Cameron, McDonald and Zanes were mowed down in this order and the race rested between Kluczek, of the Roy Wheelmen, and Magin, of the National Turners. Kluczek speedily put an end to the contest when he overhauled and passed the Newarker at three and one-quarter miles.

Kramer's entry in the pace following ranks was somewhat in the nature of an experiment and it proved so successful that the national champion intends to follow the motors from this time. Moran, the Chelsea rider, with many victories both here and abroad to his credit, was whipped by a new man in two heats, though not without a struggle. The first two heats were thrilling events, Kramer coming across the tape a winner by a length in the first and Moran taking the second. The third and deciding heat was marred by a mishap to the Chelsea rider who lost one foot off the pedal while making the turn on the last lap of the second mile. Kramer grasped the opportunity offered by Moran's plight and before the Chelsea milkman could get his foot on the pedal again Kramer had gained three-quarters of a lap. Moran was plucky and remained in the race and after regaining his pace tried hard to cut down the lead of the Orangeman, but without any degree of success as Kramer finished 350 yards in front. It was in this heat that the fastest mile of the race was made, Kramer reeling off the fourth in 1:35.

After the first two heats had been ridden Kramer demonstrated that he was a fit subject for Moran or any of the pace followers. He followed the motor without a wobble or break and at no time looked in any way like a novice at this style of racing. He won the first heat in clean-cut fashion and after it was over he was given a great ovation. Saunders paced Kramer and Connolly handled the levers for Moran. In the first two heats the riders were close together until near the finish. Moran took the lead in the first heat and maintained that position until the first lap of the third mile, when Kramer went to the front and finished a length ahead. Moran allowed Kramer to keep in front in the second heat until the last lap of the fifth mile when Connolly and Moran shot past and finished two lengths to the good. All the heats were at five miles. To-morrow (Sunday) Kramer will meet Elmer J. Collins, the undefeated pace-follower and the outcome will be watched with more than ordinary interest. The summaries follow:

One mile national amateur championship—Final heat won by George Cameron, New York Athletic Club; second, Charles A. Sherwood, New York Athletic Club; third, James Zanes, Roy Wheelmen; fourth, Ur-

ban McDonald, Tiger Wheelmen. Time, 3:19½.

Motorpaced match between Frank L. Kramer, East Orange, N. J., and James F. Moran, Chelsea, Mass., in five-mile heats. First heat won by Kramer. Time, 8:04½. Second heat won by Moran. Time, 8:43½. Third and final heat won by Kramer. Time, 8:14.

Unlimited amateur pursuit—Won by Watson J. Kluczek, Roy Wheelmen; second, Jacob Magin, National Turn Verein Wheelmen; third, Urban McDonald, Tiger Wheelmen; fourth, James Zanes, Roy Wheelmen. Distance, 3¼ miles. Time, 7:43.

Mettling Wins Match Race in Paris.

Louis Mettling defeated Lorgeu and Simar in a 50-kilometre motorpaced race at the Velodrome Buffalo, Paris, on the 15th inst. Mettling took the lead at the start and steadily increased his lead until at the finish he was leading Lorgeu by six laps and Simar was so far in the rear that the scorers had forgotten how many laps he had lost. Time, 43:20½. At the same meet Delage, the young Frenchman, who ran second to Verri in the world's championships, made his first appearance as a professional. He won his heat in the 1,000 metre scratch event handily and beat out Broka, Deschamps and Boutellier, in this order in the final. Oscar Schwab was one of the riders shut out in the heats. Hervy, an amateur, made a successful attack against the French unpaced record against time for 10-kilometres. He covered the 6.21 miles in 15:15½, as against the old record of 15:23, formerly held by Marcel Cadolle.

Providence to Hold Another Meet.

Following up its markedly successful affair on the same track two weeks ago, the Providence Motorcycle Club has scheduled and has been granted a sanction for another race meet on the Hills Grove track, to occur October 21st, next. The events programmed are as follows: One mile novice, single cylinders; three miles open; one-half mile, rolling start, single cylinders; ten miles handicap; unlimited pursuit race and one mile consolation. The club has also made application to the F. A. M. Competition Committee for the only national championship that remains undecided—the ten miles event—and it almost certainly will be given them. B. A. Swenson, 185 Prairie avenue, Providence, R. I., is chairman of the committee in charge of the meet.

Rain last Sunday caused the postponement of the Roy Wheelmen's 25-miles "Inter-State Derby," which was to have been run on the Valley Stream-Seaford course, and the New York Motorcycle Club's regularity and speed judgment run. Both will occur to-morrow—if the weather gods smile, the former starting at 2 p. m. and the latter between 8 and 9:30 a. m.

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WHAT SUGGESTED THE AIR TIRE

Dunlop Himself Tells the Story and Describes His First Experiment—Speed, Not Reduced Vibration, His Aim.

"I have often been asked the question, 'What made you think of the pneumatic tire?'" writes J. B. Dunlop, of Dublin, the inventor of the pneumatic tire, in a foreign contemporary. "It is a question that cannot be answered in one word. For years previous to the invention of the tire I had been thinking of spring wheels—not wheels with rigid rims having springs between the rim and the hub, but wheels with flexible rims which would flatten out on the road surface, the object being to intercept vibration at the ground before it reached the wheel, and also to reduce the pressure per area of the tire on the road. I never was a believer in spring wheels with rigid rims, because the rims to be sufficiently strong, would be required to be made heavier than the weight of the modern wheel and hub combined, and, that being so, there would be no reduction in the weight of the dead part, or part subject to vibration, not to speak of the many necessary complications. When I made the first pneumatic tires I considered the tread portion of the cover the part subject to vibration, and, with a view to obtaining great speed, the first covers were made as thin and as flexible as possible.

"At one time I thought of flexible steel rims, but made no experiments in that direction, as I formed the opinion that the finest quality of steel would not withstand continued bending without becoming brittle or fatigued, and crystalline in structure. Large pure rubber solid tires, no doubt, would to a certain extent flatten on the road and intercept vibration, but large solid tires were out of the question, as they were well known to run dead and increase road friction enormously. As a matter of fact, large solid tires had been tried by a number of cyclists in various parts of the Kingdom and, though they reduced vibration considerably, they were found to be very hard to push.

"After well considering from time to time several devices, some of which were rather peculiar, at last I thought of the pneumatic tire. This would be about October, 1887. I at once perceived that it would be far and away faster than the tire then in use. I mentioned the matter to my son, who at that time rode a child's tricycle. I explained how the tire would overcome the vibration at the proper place, and make a bicycle or tricycle exceedingly fast, and that I could make him the fastest bicycle ever made. I thought of postponing all experiments with the tire for two or three years, until I would retire from more active practice, but my son would brook no delay.

He often asked me to make the proposed bicycle or tricycle for him and frequently complained of the vibration he experienced, especially on the tram lines, because his little tricycle was so slow over the square sets, and he wanted to beat other larger boys at racing.

"I may say, however, that the Belfast tram lines were thoroughly up to date, and that cyclists of to-day can scarcely realize what it was to ride over sets on solid tires. My son, however, seldom rode on the streets of the city except when going to and from Ormeau park, where the roads were as level as a cinder track.

"I proceeded rather cautiously in carrying out the preliminary experiments, and without neglecting my multifarious professional duties. I procured a block or disk of wood about sixteen inches in diameter and one and one-half inches thick. I constructed an air tube out of the purest stock sheet rubber, 1.32 inch thick, and inserted in the tube, for the purpose of inflation, a short piece of rubber tubing commonly in use for children's teething bottles, placed the air tube on the periphery of the disk of wood, covered the air tube with a strip of thin linen cloth, and secured the cloth in a temporary manner to the disk of wood by means of small tacks. The tire was inflated by means of a pump used for inflating foot balls, and the little air supply tube tied with a piece of thread. This tire was made one evening in December, 1887.

"At night, when the gate was closed, I conveyed from the house to the yard the disk fitted with the pneumatic tire, and also the front wheel of a tricycle having a solid tire. No one was present except my second assistant, John Caldwell, M. R. C. V. S., my head 'ostler, my son, and a friend. Mr. Caldwell always took an interest in scientific problems and was interested in cycling. I showed him the disk of the wheel, and asked him whether the wheel with the small tire or the wheel with the large tire would be the faster, and his reply was that he would back the small tire. I first threw the solid tired wheel toward the front gate, and it did not run the whole length of the yard, and then in a similar way threw the pneumatic tired disk. It happened to run against the side wall, but on the second trial it ran the whole length of the yard, struck the front gate and rebounded with considerable force. I then went to the front gate and threw both wheel and disc as before, and with the same result, the pneumatic-tired disk rebounding off the coach-house door with considerable force.

"Mr. Caldwell seemed much surprised at the results, and he also had a throw with the wheel and disc. The friend, who was merely an interested spectator, afterwards reported that I had made a small wheel and that there was some mystery in its construction, inasmuch as the further it ran the faster it went. I daresay the pneumatic-tired disc did appear to go faster as it approached the lower and rougher end

of the yard, where he was standing, and where it commenced hopping, and rebounded off the coach-house door.

"The above experiment as to rolling friction having been concluded, the pneumatic-tired disc was then tested for its resiliency. The disc was dropped to the floor from a height of about four feet, and it was found to rise nearly to the point from which it was dropped. I explained to my son that this test was one way of estimating the speed of the tire. When the pneumatic tire is being ridden, power is expended in compressing the tire in front as it comes in contact with the road, and power is given out again behind as the tire leaves the road; the difference between the power expended in front and the power given out behind represents the power required to drive the tire or the amount of energy lost by friction, and this energy can be roughly estimated by testing the tire as regards resiliency. On a hard floor, hard pumping increases the resiliency of the tire, whereas on a soft ground very hard pumping decreases the apparent resiliency of the tire, due to the impression made on the road, and this indicates that the tire should be pumped very hard on a smooth track, and softer on a rough soft track. I explained these two methods of testing the speed qualities of a tire in an interview with R. J. McCreedy, published in the Irish Cyclist in 1889. Other tests were made relating to the lateral and circumferential rigidity of the tread of the tire, and this rigidity is a most important factor contributing to the speed of the pneumatic tire on the smoothest of tracks. It may be of some interest to relate that the first pneumatic tired safety was designed with a view to its being ridden on a cinder track in England, but it was not finished in time. Many absurd stories have been told and erroneous statements made regarding the invention of the tire. For instance, it has been said that I made the tire for my son, who was delicate, and could not stand the vibration from the solid tire, whereas my son did not mind the vibration particularly, except that it made his machine slow or hard to push. Moreover, I predicted to several friends that I would make the fastest tire ever made, and stated to R. J. McCreedy in 1889 that the air tire was faster than the solid, even on the smoothest possible surface, so that the statement that I invented the tire to prevent jogging only, and not for speed, has no foundation in fact.

"These are the first steps taken to test the principle of the pneumatic tire. The making of the first tires for my son's little tricycle and subsequent events leading up to the introduction of the tire could not be dealt with in a short article such as this."

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FINE FINISHES AT BROCKTON

Fights for First Place and for Time Prizes
Prove Battles Royal—Local Talent
Triumphs in Each Instance.

Charles Kelson, of Brockton, Mass., riding with five minutes' handicap, won the fifteen mile road race held by the Brockton bicycle dealers at that place, on Saturday last, 29th inst. Kelson rode in fine style throughout and the finish at the tape, when he beat out Jud Small by a half-wheel after a terrific sprint, was one of the closest that has been seen in a road race in Brockton for years. Frank V. German, the sturdy plugger of days ago, was in the thick of the bunch at the finish and made a desperate effort to snatch the coveted honor. H. Alvin Loftus, of Cranston, R. I., the solid youth who won the twenty-five mile road race a few weeks ago, was fourth. He rode a good race and set a hard pace on the last lap. Small, a newcomer this season, deserved and received many cheers for his hard ride. His efforts, coupled with those of Loftus, nearly took the time honors from the scratch men, the latter getting the time prizes by only a few seconds.

Charles Helander, of Brockton, got the first time prize from scratch. Bussey has been sick for some time, but he rode a plucky race from scratch and got second prize, being beaten by Helander by two-fifths of a second. Helander's time for the fifteen miles was 45:06½. Helander and Bussey started out to do things from the start and before the first five mile lap was completed they had overhauled the one minute men, Connors, of Lynn, and Cutter, of Wakefield.

Thirty-one riders started and twenty-seven finished. Among this number was W. H. Senter, Jr., who won his first race

twenty-five years ago, around Lynn common. At the finish Senter rode in smiling in twenty-sixth place.

The finish between the longmarkers was exciting to the highest degree and had the large crowd of spectators cheering wildly for their respective favorites. Cutter, Helander, Connors and Bussey with Fred Stillman sleighriding, started for the tape at Main and Holmes streets in a sprint that was fast enough for a track race. They were abreast most of the way, but about twenty yards from the tape Cutter jumped and led Helander across by a length, the latter sitting up. Bussey was a half-wheel back in third place and Stillman and Connors next in order.

The riders finished in bunches, and each bunch fought it out for place, in a manner that made each finish of a group a race in itself. It was one of the most successful races that has been held in Brockton in years and the increased attendance of spectators at each succeeding race shows that the Brockton public is evincing a renewal of interest in cycling. The course was in good condition, five miles to each lap, and the only place that bothered the riders was the turn from the State highway into Hayward Street at an acute angle. A narrow wagonway helped some, but the riders had to execute some remarkable stunts to prevent dashing into a stone wall opposite the wagonway. Kelson bumped the wall in the first lap and was unseated, but remounted again before the bunch he was traveling with got out of sight. Tom Panacy shot up the bank into a field by the end of the wall in the first lap. He retained his seat and circling around through the deep grass rode over a 10-foot embankment and rejoined the bunch. "Bill" Senter declared before the race that he would be the last man in and as he got the last prize he was happy. The summary follows:

Rider.	Handicap.	Time.
Charles Kelson, Brockton.....	5m.	47:20
Jud Small, Brockton.....	3m.	45:20½
F. V. German, Brockton.....	4m.	46:20½
Alvin Loftus, Cranston, R. I.....	3m.	45:20¾
Leslie Morgan, Worcester.....	6m.	48:40
Harold Morgan, Worcester.....	6m.	48:40½
Watson Walker, Wakefield.....	5m.	47:40½
W. H. Packard, Brockton.....	4m.	46:43
Ralph Hooper, Wakefield.....	6m. 30c.	49:25
Harry Bickford, Brockton.....	6m. 30s.	49:50½
Herbert Johnson, Brockton.....	5m. 30s.	48:50½
James Gabrey, Shrewsbury.....	6m.	49:21
Merton Sawtell, Brockton.....	2m. 30s.	46:05
Leslie Lewis, Worcester.....	2m. 30s.	46:05½
Tommie Panacy, Brockton.....	2m. 30s.	46:05½
Percy Cutter, Wakefield.....	1m.	46:06
Charlie Helander, Brockton.....	Scratch.	45:06½
W. H. Bussey, Brockton.....	Scratch.	45:06¾
Fred Stillman, Melrose.....	4m.	49:06½
A. F. Connors, Lynn.....	1m.	46:07
George Johnson, Brockton.....	5m. 30s.	50:55
Harry Halliwell, Lynn.....	5m.	50:26
Harry Winberg, Eastondale.....	5m.	50:47
Fred Hill, Watertown.....	3m.	49:05
James Haggerty, Brockton.....	3m.	48:18
W. H. Senter, Jr., Brockton.....	6m. 30s.	53:20
M. Cunningham, Eastondale.....	6m. 30s.	54:15

Time prizes: First, Charlie Helander, Brockton, scratch, 45:06½; second, W. H. Bussey, Brockton, scratch, 45:06¾; third, Jud Small, Brockton, 3 minutes, 45:20½.

SAFE-GUARDING CATOOSA'S MULES

The Process will not Make Motoring Very
Pleasant in that Georgia County, but
They are of Small Consequence.

Catoosa county, in the northwestern corner of Georgia, is not much of a county but it is rich in mules; as the mules do not apparently take as kindly to automobiles or motorcycles as the animals in the other counties of the State, the learned legislative representative of Catoosa has made certain that the long-eared animals shall have an unusual measure of the law's protection. Henceforth, when an automobilist or motorcyclist sees a mule, or a horse, for that matter, he must stop forthwith until it is discovered whether his muleship inclines to take to the woods. The law requiring this sort of thing, which has been signed by the governor, is as follows:

Section 1—Be it enacted by the general assembly of Georgia, and it is hereby enacted by authority of the same, that from and after the passage of this act it shall be unlawful for any person to run an automobile, motorcycle or other similar machines over the public roads of the county of Catoosa at a greater rate of speed than 10 miles an hour.

Section 2—Be it enacted by the general assembly aforesaid, that it shall be the duty of anyone in charge of or running an automobile, motorcycle or other motor vehicle upon the public roads of the said county of Catoosa, who is meeting or approaching anyone driving or riding a horse or mule to bring his machine to a full stop at least 150 feet from said horse or mule, and shall shut off all machinery and stop all noise being made by the same until said horse or mule has passed his machine and is at least 50 feet beyond the same.

Section 3—Be it further enacted by the authority aforesaid, that when anyone in charge of or running an automobile, motorcycle or any other similar machine upon the public roads of said county of Catoosa shall approach from the rear anyone driving or riding a horse or mule, he shall blow his horn or whistle before he approaches within 150 feet of said horse or mule hitched to a vehicle or tied, the speed of his machine so as to enable the person in front of him to unhitch the horse or mule or get out of the way of said machine, and that he shall not pass said team at a greater rate of speed than 2 miles an hour.

Section 4—Be it further enacted by the authority aforesaid, that when anyone running an automobile, motorcycle or other similar machine upon the public roads of said county of Catoosa is approaching a horse or mule hitched to a vehicle and tied to a post, tree or other fastening, shall stop his machine at least 200 feet from said horse or mule and give the owner of said horse or mule a chance to unhitch him

from the vehicle or remove him to a place of safety.

Section 5—Be it further enacted by the authority aforesaid, that no person shall be allowed to run an automobile, motorcycle or other similar machine upon the public roads of said county of Catoosa without first having registered his machine and received a number from the clerk of the superior court of said county of Catoosa. Said number shall be displayed at some conspicuous place on rear of machine, as indicated by said clerk, and that each figure in said number shall measure at least $1\frac{1}{2}$ by $2\frac{1}{2}$ inches.

Vexatious Cause of Misfiring.

There is one thing that is apt to be overlooked by the troubled motorcyclist who is hunting in vain for the location of some break in the ignition circuit that permits his engine to run at times and halt at others, and that is the contact or rather lack of it at the switch. On some machines this takes the form of plug and socket and with continual use the spring members forming the sides of the socket are pressed out of place thus making the opening so large that the plug is no longer a snug fit but joggles about more or less in its socket. On others it is a simple spring blade pressing against a metal button and in such a case it is easier to see the cause of the trouble if it is looked for in the right place.

Take a visiting card or a piece of paper

and see if it can be inserted between the switch arm and the contact point. If there is a good contact it will be impossible to do so without using sufficient force to lift the spring. If the switch is at fault in this way running the machine on the stand will illustrate the reason for the irregular firing. The shaking caused by the running of the engine alone is sufficient to cause the switch blade to vibrate and when it does so to any extent it fails to make contact and a miss follows. When this is further aggravated by the jolting of the road it is easy to see why it causes the motor to stop altogether at times.

The Use of Toe Clips.

Although practically all cyclists and almost as many motorcyclists believe that the use of toe clips is absolutely necessary, it may come as a surprise to not a few of them to learn that one of the best known figures in the motorcycle industry, and who twenty years ago was the leading luminary on the cycle racing path, never found toe clips necessary to his success. He is none other than George M. Hendee, now the "big chief" of the Indian motorcycle tribe, and who, although very many do not know it and none would suspect anything of the sort when they see Hendee's 260 odd pounds, was for many years the champion of America. His name was then one to conjure with. When the safety came in Hendee still remained a prominent figure

on the track, but not for long. Of late years, needless to add, his mount has been a motor bicycle.

His opinion regarding toe clips was brought out recently when several motorcyclists were expressing the belief that they absolutely could not get along without them. To the surprise of the party, Hendee stated that he had never used toe clips, even in his championship days on the high bicycle, nor on the safety, nor does he use them to-day on his Indian—a statement which will probably come as a shock to not a few racing men.

Causes of Skidding and the Cure.

Skidding, the bane of winter travel for the bicycle rider, is brought about only when there is a side thrust at the tire tread due to one of several causes. Consequently, it is only to be prevented effectually by overcoming or avoiding one and all of these as far as possible. Briefly, destructive side thrusts may be caused when the road is "sliding"; when the machine is canted to one side, so that its weight falls outside the wheel base, or when the machine is turned so suddenly as to cause the inertia of the rear part to overcome the traction of the wheel, and it starts off in an attempt to "beat the front wheel." For all this, keeping in the centre of the road and traveling as nearly in a straight line as possible is the beginning of the cure. Without it, even the best of non-skids are ineffective.

Veeders for Motorcycles.



Veeder Trip Cyclometer for Motorcycles.

Price complete with Motorcycle Striker, \$2.50.

Veeder Trip Cyclometers are now made with a strengthened case, making them suitable for the more severe service of motorcycle use. A new motorcycle striker is also provided, which clamps securely to the spoke of a motorcycle wheel.

Motorcycles need regular lubricating periods—not based on time, but on **mileage**. In addition to the practical, mechanical reasons for having a Veeder on your motorcycle, there is the further reason that—

"It's Nice to Know
How Far You Go."

FREE BOOKLET ON REQUEST.



The New Veeder Motorcycle Striker.

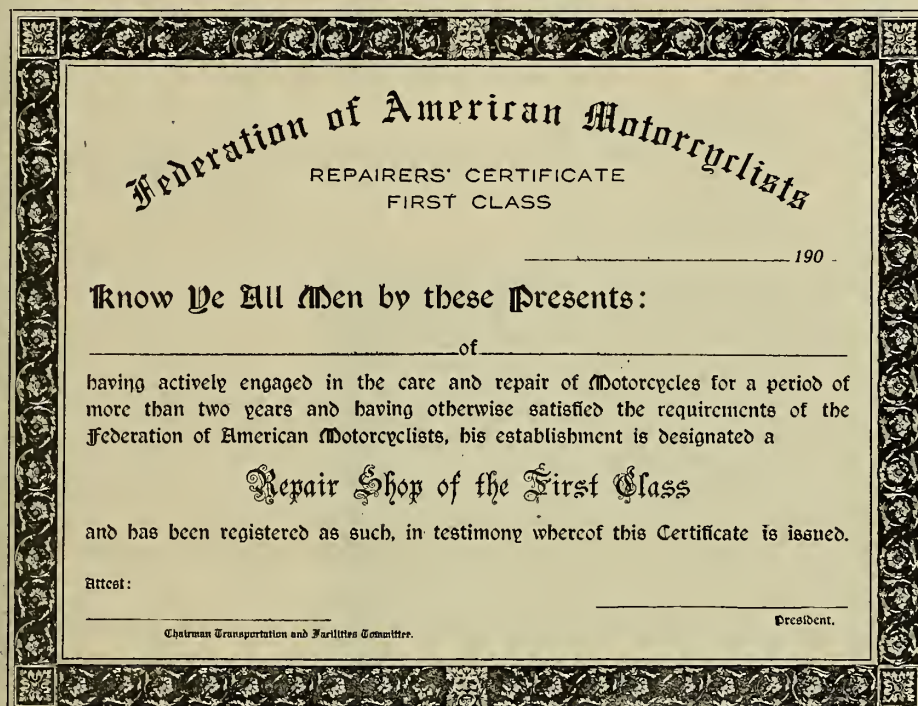
THE VEEDER MFG. CO., 36 Sargeant St., Hartford, Conn.

Makers of Cyclometers, Odometers, Tachometers, Tachodometers, Counters and Fine Castings.

SIFTING OUT THE REPAIR SHOPS

Good Work that is Being Performed for Motorcyclists—How the Shops are Classified and Registered.

One of the good works in which the Federation of American Motorcyclists has been engaged during recent months, is its endeavor to seek out and point the way to those men and shops where the motorcyclist may be assured of experienced service. Its gold bordered certificate, of which the accompanying illustration is a reproduction, is gradually finding its way into



all parts of the country and is being displayed and turned to good advantage by the holders.

The organization of this system of first-class repair shops, each of which is registered and numbered, is being diligently prosecuted, and constitutes a work that cannot but prove helpful to all concerned. To obtain a certificate, the applicants must answer a long list of questions, and none is registered or designated "first class" who is not a motorcyclist and who has not had at least two years' experience in practical repair work. The first class shop must also be equipped to perform lathe work and to carry in stock spare parts and also such necessities as batteries, spark plugs, engine oil, insulated wire, etc. The system also adds to the value of the F. A. M. membership card, as while it is not imperative, practically all of the certificate holders are according a discount on repair work to F. A. M. members.

In the spring, the list of these registered shops, and their storage capacity and the charge for storage and the discounts granted is to be issued in book form.

To Clean the Crank Axle Bearings.

To the cyclist who is mechanically inclined and handy with tools there is an improvement readily made on the bicycle which it appears very strange has never suggested itself to the manufacturers. This is an outlet in the bottom bracket or hanger containing the crank axle and its bearings. By placing the machine upside down in a vise a 3/16 or 1/4-inch hole may be drilled midway between each end of it. This should be tapped and a small screw put in it. Then whenever it is necessary to clean these bearings it is not necessary to dismount the crank axle as is now the case. The machine can be stood upside down, the set

screw removed and the crank hanger filled out with kerosene. This can be worked through by turning the cranks by hand for a few minutes and then it can be drained out by placing the wheel in its proper position again. Repeating this operation a few times will make things as clean as they could be gotten under ordinary circumstances by the more lengthy and involved process of dismounting the machine.

One Disadvantage of Oiled Roads.

Sad experience has gone to show that whatever may be the virtues of the oiled road in dry times, it is a thing to be approached with caution and great discretion when its surface is moist. Theoretically, the oil sinks below the surface, rendering it in a measure waterproof. As a matter of fact, however, the water does permeate to a slight depth when heavy rains fall, serving to float to the top a small quantity of oil which, mingling with the loose soil of the top layer, saponifies and forms one of the most successful skidding lubricants known to the cyclist.

TO REMOVE A SOURCE OF DANGER

At Last, there Appears a Practical Means of Making Automobile Headlights Less Blinding—The Solution Offered.

Safe to say, no circumstances connected with night riding can be more annoying or dangerous to the cyclist than the confusion arising from the glare of the headlights of approaching motor vehicles. Numerous propositions have been made looking toward the abatement of this nuisance, ranging from the ridiculous well in the direction of the sublime. Yet up to this time none have appeared which upon their face were stamped as being practicable. Now, however, an Exeter (England) man, one K. H. Evans, has given birth to an idea which seems to be thoroughly effective. In a word, it is an application of the principle so long applied in the advertising signs which read differently from different directions.

A series of parallel blades are placed within the lantern directly in front of the flame, lying horizontally and only a half-inch or so apart. These are blackened on the upper side and polished below, thus acting as deflectors to throw a portion of the light directly down upon the road, but absorbing any which is thrown upwardly. Thus the direct rays are not interrupted, but are thrown forward to the full capacity of the reflector, while all others are either absorbed, or thrown downward. The rider approaching a machine carrying a lamp thus constructed, will notice its light at considerable distance, but on approaching nearer and nearer to it, will not be blinded by it, and when in close proximity, will find all but a dull glimmer, streaked with the shadows of the blades, cut off from his vision.

To Remove Old Enamel.

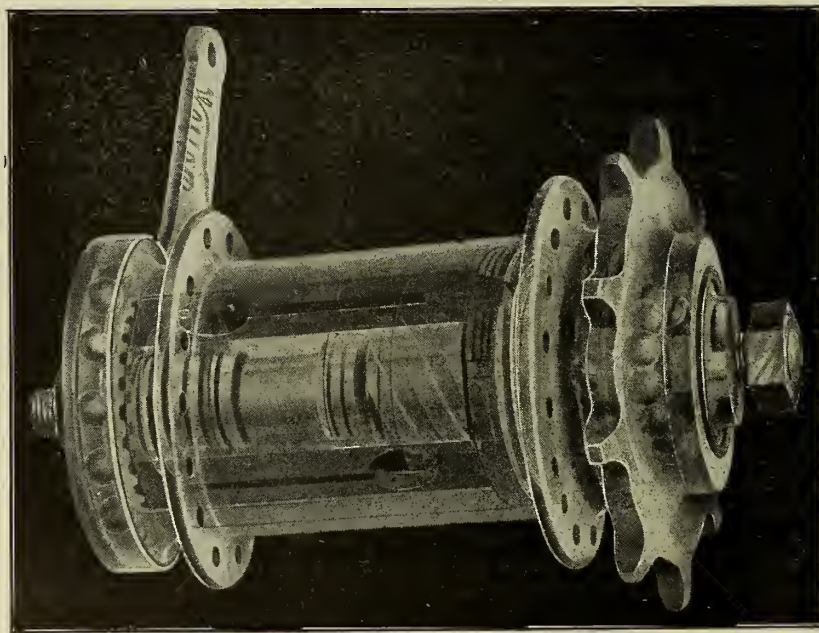
When it is desired to reënamel any portion of the machine, such as one of the forks, for instance, it is better to entirely clean the old pigment from the part and begin from the bright metal than to attempt to do a touch-up job. This can be most quickly and effectively done by soaking the part in a strong solution of lye of caustic soda for a few minutes, when the old enamel will peel off in strips, after which a light treatment with a fine emery cloth will prepare the surface for the new coat. By this means a perfectly flat and smooth surface is obtained which better accords with the remainder of the machine than any amount of patching can do, no matter how skillfully it may be done.

"The A B C of Electricity" will aid you in understanding many things about motors that may now seem hard of understanding. Price, 50 cents. The Bicycling World Co., 154 Nassau Street, New York City. ***

ACCIDENT INSURANCE

THE MORROW Coaster Brake

is an insurance investment that should not be overlooked by bicyclists and motorcyclists, whether riding for pleasure or business.



Here is the experience of a well-known dealer:

"Allow me to tell you what I consider was a good test for your brake. I was driving a 1906 "Curtiss" single cylinder machine with two riders at the rate of about 30 miles an hour and just got to the top of a short steep knoll when I saw within 10 feet of us a young horse hitched to a buggy and on his hind legs and crosswise of the road. It was a case of stop or get smashed up as there was no room to pass and if ever one of your brakes got a test I think it did then as I set, with the result that it stopped the machine within about a foot of the rig and almost turned the machine around, it worked so well, never damaging the brake a particle. I have ridden Motorcycles for the past few years and this is the first brake that I have given anything like such a test without breaking something."

ECLIPSE MACHINE CO.,

Elmira, N. Y.

USE OF THE SOLDERING IRON

**How to Employ it to Best Advantage—
"Tinning" one of the First Essentials of Success.**

Perhaps the greatest difficulty which the average repairman experiences in the early use of the soldering iron would be reduced to a negligible quantity were he thoroughly to comprehend the first principle of the art, which is that of keeping the iron properly tinned. The iron, or bit, as it is sometimes called, must be kept in fit shape at all times as otherwise the solder will not adhere to it and instead of being directed by it into the joint, will flow away any and everywhere else.

First of all, the iron, which, strangely enough is invariably made of copper, should be very soft. The constant heating and cooling has a tendency to make copper hard and brittle. If heated to a red heat and then plunged into water it will soften—exactly opposite to steel. It will therefore be seen that if the copper is always quenched in cold water after use its softness can be retained.

A copper should never be heated to a red heat as this makes it hard as well as destroying the "tinning." The tinning of the bit is a most important part of the soldering operation. It consists of amalgamating a layer of tin or tin alloy with the surface of the copper. It is only when this amalgamation is thorough that soldering can be successfully performed. To tin the bit, proceed as follows: File its end quite bright and to the shape required. Then heat to just below red heat. Now quickly take it in the vise and file its surface again; next have ready a small piece of tinned iron sheet or tin plate and some powdered salammoniac as used in Leclanche batteries. Sprinkle a thimbleful of salammoniac on the bright plate and rub the whole of the bright surface of the copper bit upon it. The heat will melt the salammoniac which will act as a flux, and the tin off the tin plate will amalgamate with the copper, and the result will be that the end of the copper bit will have the appearance of being bright tin. In that condition it is ready for use, and should always be kept in that condition. Making it red hot will burn the tin off, and it will require to be tinned again. There should always be ready when soldering is finished a tallowed cloth to wipe the tinned end of the soldering bit before quenching it in the cold water. If by accident the soldering iron is left so long in the fire as to burn the tin, it will require filing and re-tinning.

In soldering any article, the object is to get it so hot by radiation from the copper bit that the solder will melt on it. That is to say, the copper must raise the temperature to above the melting point of solder. Different fluxes may be used. For tin, steel wire, etc., "killed" acid is the best. The

best way to prepare it is to place a small quantity of weak muriatic acid in an earthen pot and drop in the zinc in small pieces about the size of a penny. Ebullition will set up and the temperature will be raised to a point which will crack glass, hence the earthenware pot. Very strong and disagreeable gases will be given off, so that the job should be done out in the open air. Continue adding zinc until the gas ceases to be given off. For brass and copper, salammoniac, powdered in a pepper box, is handy, it being sprinkled on the work. For zinc, the only good flux is powdered resin, and the same refers to lead. The flux should be applied with a stiff brush, preferably with a lead handle, as the acid does not affect that metal. The han-



NEW YORK BRANCH: 214-216 WEST 47TH ST.

dle can be conveniently made from a piece of thin lead piping. For soldering the ends of fine cable or wire, the copper should have a groove filed across it. The wire end can be laid in this, and the solder stick applied, when the bit will draw the solder through, thoroughly covering every strand of the cable.

The killed acid should, if possible, be kept out of doors, as it gives off fumes which would speedily rust all iron and steel in its neighborhood. The great points to attend to in soldering are:

Never heat the iron above a red heat.

Quench it in water immediately after use.

Always keep it tinned well and of good shape.

Keep the killed acid away from iron or steel tools.

Never use the acid unless thoroughly killed or neutralized.

Never use acid as a flux when soldering electrical wires or actuating cables, as the acid will rust the latter and cause chemical action in the former.

ATTENTION THAT SAVES TIRES

**Small Injuries Which Taken in Time Save
Nine—Remedies for "Blisters" on
the Tread.**

Tires should be looked at carefully from time to time, not alone to catch the occasional bit of glass that has embedded itself in the rubber but has not yet worked its way through, but to detect other defects as well. It is a matter of common knowledge, born of long experience, that whatever the cause of puncture may be it seldom goes right through the tire when it strikes it, but if caught in a position favorable to that end the constant revolution of the wheel on it will sooner or later cause it to do so. Then there is another defect that will sometimes occur in good tires that may be found and remedied before any damage is done, if an occasional inspection be indulged in. It manifests itself in the shape of small air bubbles immediately under the layer of rubber constituting the tread of the tire. These may readily be compressed with the hand. They are, in fact, similar to weak spots in an inner tube and will puncture very easily. The extra pressure concentrated at that point will also cause the tread to wear through very quickly unless protected.

Unfortunately there is no way of locating the point at which the air is escaping on the inside of the tire itself, although even if that could be done it would be a difficult matter to get at it in order to make a repair. Apart from this, the difficulty lies in the fact that the latter point and the place at which these blister-like protuberances are formed, may be separated by half the circumference of the tire. For the air after it escapes from the air chamber must find its way through the various layers of fabric and rubber and to do this it seeks the weakest spots. These may be near its primary outlet or they may be some distance away, it all depends upon how good the rest of the tire is, but seldom if ever, are the two coincident so that a plug placed in the tire where the blisters appear will not act as a cure. There are two remedies open, one is to inject a leak-preventing solution into the tire which will find its way into the hole and stop the escape of air and the other is to apply a tape bandage to the blisters themselves. The latter is not a slightly repair by any means, but unless the tire has other weak spots it will be found to constitute an equally effective one, in support of which an instance may be cited in which a tire suffering from this ill required pumping every few days to keep it to the proper point of inflation, whether ridden or not, and after the application of the tape to the blisters, it was as hard at the end of a month as when first pumped.

Like the Yale-California motorcycle,

Yale and Snell Bicycles

have been

The Best Pleasure Promoters and Profit Payers

on the American Market.

The lines and prices are so comprehensive and the reputation of the goods has been so well sustained, that there is no man, woman or child to whom they do not appeal.

DO YOU SELL THEM?

CONSOLIDATED MANUFACTURING CO., Toledo, Ohio

Development of the Motorcyclist.

It is amusing to note the two stages of mind that the novice must pass through before becoming a full-fledged motorcyclist. When he first acquires his machine he is usually very hazy as to the why and wherefore of the majority of things about it. Things go very well for a few hundred miles and he gains confidence, all is well. In the next few hundred miles he may occasionally be called upon to show his knowledge to the extent of making minor carburettor adjustments or smoothing out an ignition ill. Success in these things arouses his conceit and he has blossomed forth into the fullness of the second stage—in short, he knows it all. Then he finds himself a long ways from nowhere some day and begins to realize that while two things are generally responsible for stoppages—the ignition or carburettion—they may manifest themselves in a great variety of forms. One or two experiences of this kind usually suffice to bring him back to that intermediate stage of common sense which makes a man appreciate that he really does not know it all and prevents him from saying so.

Recklessness, not Speed, the Offense.

Those staid citizens of the Say State who have made no pretense at concealing their joy over the workings of the recently enacted automobile law, have received a setback that is not at all to their liking. It is contained in the ruling of a Norfolk county judge who has decided that the prosecution must not alone offer evidence of the speed limit having been exceeded, but also of recklessness in driving in order to prove a violation of the law. Accordingly, a motorist who was arrested for simply exceeding the speed limit, no other evidence being offered, was discharged. And it apparently adds gall to the motorphobe's cup of bitterness that the lawyer who was responsible for the Massachusetts law as it now stands was, likewise the proponent of this new plea of defense.

"But what is the speed limit in the law for?" ask these disgruntled ones. "Is it merely a suggestion that the motorist may follow or not just as he pleases. If recklessness must be proven by other testimony than that as to speed then why not abolish the speed clause altogether?"

The Excitement of Alpine Touring.

One Dr. Bach, a German tourist, recently had a hair-raising experience while cycling in the Alps near Göshen. Whilst riding down a steep road his brakes became disordered, with the result that the machine precipitated over the parapet of the bridge, crossing the River Reuss. The doctor was precipitated over the parapet of the bridge, but was lucky to catch a chain hanging from one of the bridge girders. In this position, over a fearful abyss, he hung for almost half an hour, his cries for help being unheard by the occupants of passing vehi-

cles. He was eventually seen, however, by some peasants, who drew him up from his precarious position by the aid of a noosed rope lowered to him. The strain must have been terrible, the flesh being torn from the hands, while the muscles were stiff, swollen and useless.

The St. Louis Cycling Club has set its road race for Oct. 14th. It will be the first event of the sort held in that city for a long term of years. Efforts were made to obtain permission to use the once famous Forest Park course, but it was refused. Accordingly, the race will be run from the city limits to Hilltown, a billowy course of about 14 miles.

American Motorcyclists

are already well aware of the unrivalled comfort and quality of the world-famed

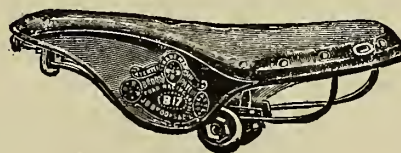
Imported Brooks Saddles

American Cyclists

now will have the opportunity to become acquainted. We have obtained control of the American sale of the full line of the Brooks saddles and to all riders able to appreciate the combination of

QUALITY, COMFORT STYLE AND DURABILITY

we recommend the

**Brooks B17**

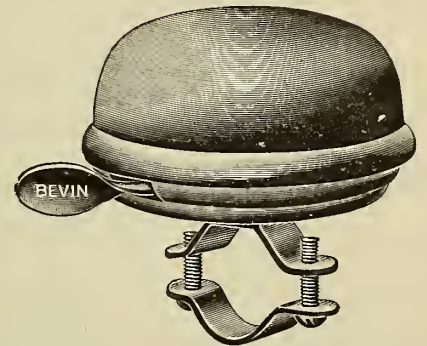
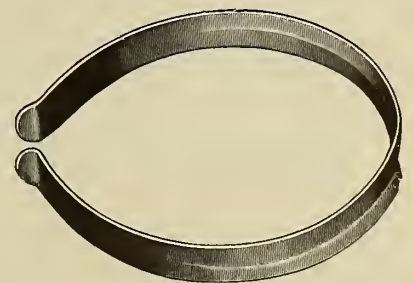
There is no other saddle just like it or half so good.

Inquiries Invited.

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Hendee Mfg. Co., Springfield, Mass.

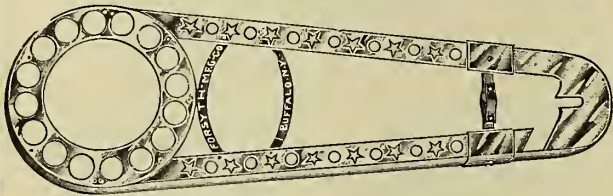
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Bells****BEVIN
Toe Clips****BEVIN
Trousler Guards**

Prices as interesting as ever.

Bevin Bros. Mfg. Co.
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FORSYTH SPECIALTIES.



Full Chain Guard with All Connections.

Made in sections and riveted together, giving enough elasticity to avoid the "twang" of a one-piece guard. Adjustable to stretch of chain and to differences of length between centers of axles.

FORSYTH MANUFACTURING CO.,

"Handy things to have about the house."

We also make

**Mud Guard Fittings,
Sprocket Guards,
Metal Hand Brakes**
and other Specialties.

Buffalo, N. Y.



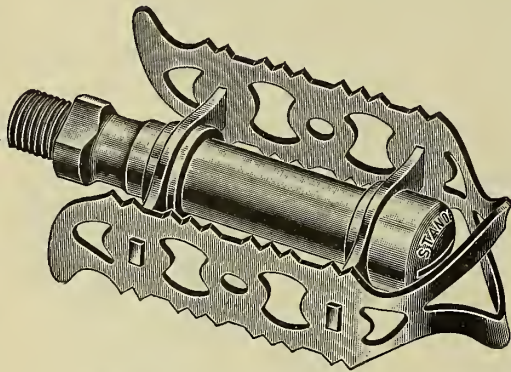
Half Guard with All Connections.

Notice the method of attaching front connection. Enough adjustment to meet the angle of any frame; a little feature all our own. It counts. These guards are just a little better than any others. That's why we are still making and selling lots of them.

PEDALS AND SPOKES FOR EVERY MANUFACTURER WHO PRODUCES BICYCLES

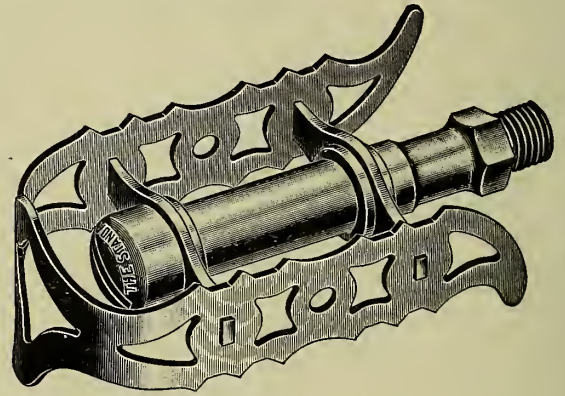
AND

For Every Man Who
Sells or Rides Them.



STANDARD JUVENILE NO. 2.

They are Pedals
and Spokes of the
Right Sort, too.



STANDARD NO. 1 RAT TRAP.

DIAMOND E SPOKES

QUOTATIONS ON REQUEST.

THE STANDARD COMPANY

Makers also of Standard Two-Speed Automatic Coaster Brake, and Star and Sager Toe Clips,
TORRINGTON, CONN.

Schrader Universal Valve.

(Trade Mark, registered April 30, 1895.)

NOTICE.

Manufacturers of Bicycles, Jobbers and
Dealers:

In order to facilitate the
obtaining of

**PARTS of the
Schrader Universal Valve,**

We have concluded to sell
parts only to the general
trade.

Parts 99-1, 99-2, 99-3, 99-4 may be had from all makers, or
from A. SCHRADER'S SON INC. Price List sent on appli-
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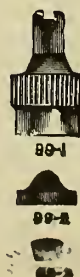
**SIMPLE AND
ABSOLUTELY AIR-TIGHT**

Manufactured by

A. SCHRADER'S SON, Inc.

ESTABLISHED 1844.

**28-32 Rose St.,
New York, U. S. A.**



THE BICYCLING WORLD and MOTORCYCLE REVIEW

FOUNDED 1877

Volume LIV.

New York, U. S. A., Saturday, October 13, 1906.

No. 3

REBATE SUITS ARE SETTLED

As Trial Approaches, Pope and Rubber Goods Get Together and Make Peace—
Echo of "Bicycle Trust" Deal.

After occupying a place in the court docket some three years and as the time for trial approached, the suits of the Pope Mfg. Co. against the Rubber Goods Mfg. Co. for nearly half a million dollars, which held promise of constituting a celebrated case, are being amicably settled this week.

It is definitely known that the terms of the settlement have been arranged and that all that remains to be done is the signing of the "treaty of peace." In the negotiations, the Rubber Goods Mfg. Co. was represented by its president, Charles H. Dale, and directors Samuel P. Colt and Anthony N. Brady, and the Pope Mfg. Co. by A. L. Pope, vice-president, and William A. Read and F. S. Smithers, directors. The terms of settlement are not public property but are such as have completely reestablished cordial relations between the two big companies and their officials.

The actions, of which there were two, engendered much bitterness and even personal ill-feeling. They grew out of an agreement made on November 8, 1899, between the American Bicycle Co. and the Rubber Goods Co., whereby the former sold to the Rubber Goods Mfg. Co. the plants and capital stock of the Hartford Rubber Works Co., Indianapolis Rubber Co., and the Peoria Rubber & Mfg. Co., which previously had constituted units of the "bicycle trust." The agreement required that the A. B. C. purchase 90 per cent. of its bicycle and other tires from the Rubber Goods Co. in consideration of which the latter bound itself to pay an annual rebate of \$200,000 for five years.

The rebate was paid up to the time of the failure of the American Bicycle Co. When the \$200,000 due November 8, 1902,

was demanded payment was refused on the grounds that the failure released the Rubber Goods Co. from its contract. Several efforts were made to reach an amicable agreement but each of them failed and when the Pope Mfg. Co. came into possession of the considerable remnants of the "bicycle trust," the first legal proceedings were instituted; they were followed a year later by a similar suit for the same amount of rebate covering that twelve-month.

The contention of the Rubber Goods Co. was, as stated, that they made no agreement with the Pope Mfg. Co., and that it was not bound to a contract with one company and then assigned to another. It was also understood that, if need be, the defendants would allege and undertake to show that the other parties to the agreement did not adhere to the 90 per cent. requirement of the agreement. The Pope people, of course, denied the latter allegation and claimed that as the "heirs" of the American Bicycle Co. they inherited the rebate in common with everything else.

Pope to Close Boston Branch.

On November 1st, the Pope Mfg. Co. will discontinue its branch in Boston, so long maintained at 223 Columbus avenue. The fact is of more than passing interest, as Boston was the original Pope headquarters and starting point and at one address or another a Pope establishment has been located there since 1878, when Col. Pope first became interested in bicycles and sold imported machines. Who will handle the Pope bicycles in Boston has not been definitely settled but indications point to the opening of a new store for the purpose by a man who long has been identified with the Pope interests in New England.

Meeting Put Backward One Week.

Since fixing November 7th as the time of the next meeting, the Cycle Manufacturers' Association have put backward the date one week and accordingly will meet on Wednesday, 14th inst., as originally stated.

ROBINSON LOSES AN APPEAL

Patent Office Unties Another Knot in the Long Drawn-out, Three-Cornered Coaster-Brake Snarl.

Patent Commissioner Allen has given the long drawn-out Townsend vs. Copeland vs. Robinson coaster-brake interference case still another whirl, this time denying an appeal lodged by Robinson. In his decision, the Commissioner says:

"This case comes before me on a rehearing of the appeal by Robinson from a decision of the Examiner of Interferences denying Robinson's motion to transmit a motion to amend the issue.

"Robinson's motion to amend the issue does not come within the provisions of Rule 109. The proposed claims are claims not made by either of the opposing parties and were asserted by Robinson for the first time in this motion. The motion is objectionable in that it was brought long after the time specified in the rules for bringing such motions, for which no excuse is given. Moreover, it is the second motion which Robinson has brought to amend the issue, and no reason is given why these claims could not have been embodied in the first motion. The present motion to amend the issue was transmitted by my prior decision upon this appeal notwithstanding these objections, because, as then understood, Copeland and Robinson waived the objections by failure to oppose transmission; but my attention has been directed to the fact that the parties did oppose, and do now vigorously oppose, the transmission of this motion. This opposition puts a different aspect upon the question of transmission. The objections to the motion to amend the issue are of a character which are permitted for the protection of the parties. They are such in this case that the motion should not be transmitted

when they are not waived by the parties interested in their enforcement.

"Robinson has filed a protest against consideration upon rehearing on the ground that due notice of the filing of the motion for rehearing and a copy thereof were not served upon him. It is further asserted by him that he was not advised until the rehearing was had to what appeal the same pertained. As to lack of notice of the filing of the motion, the practice does not require that notice be given of a motion for rehearing. A notice by the office of the time and place of rehearing and of the matter to be reconsidered is sufficient. In this case it appears that the office gave notice that a rehearing of an appeal on motion had been granted and that such rehearing was fixed for a date six days subsequent to the date of the notice. This notice did not state specifically what appeal was to be reheard; but as only one appeal on motion had been taken and disposed of since December, 1905, the particular matter referred to could not be in serious doubt. Moreover, the fact that the protestant made no inquiry of the office as to the particular matter set for rehearing indicates that he understood to what the notice referred. Furthermore, as all parties have had a full opportunity to argue the points involved a further argument is unnecessary.

"The decision of the Examiner of Interferences refusing to transmit Robinson's motion to amend the issue is affirmed."

The Retail Record.

New York—Wagner Motorcycle Co., removed to 2384 Broadway.

Edmond, Okla.—Scott McDonald; store destroyed by fire; partially insured.

Elkhart, Ind.—H. A. Knevels, opened new bicycle store at 129 South Main street.

Aurora, Ill.—O. L. Erwin & Co. dissolves; O. L. Erwin purchases entire interest.

Mueller May Manufacture in St. Paul.

According to advices from St. Paul, Minn., a scheme is being agitated to form a stock company to manufacture motorcycles and light gasoline motors in that city. Arthur D. Muller, who comes from a family of mechanics, has, it is stated, perfected some new devices, which he wishes to incorporate in the proposed machines. He has secured a factory building and is soliciting subscriptions for stock.

To Do Business in Miami.

W. W. Prout, C. W. Merrill and A. Dickinson, of Miami, Fla., have formed a company to do a general bicycle and automobile business in that resort. The company has applied for a charter.

Lincoln Becomes a Corporation.

The Lincoln Cycle Company, of Lincoln, Neb., has taken out papers of incorporation with \$20,000 capital. B. D. Wood and Fred Grotte are named as the incorporators.

PROFITS OF BRITISH INDUSTRY

Filing of the Annual Balance Sheets Discloses Extent of Prevailing Prosperity—Premier's Enormous Production.

The extent of the continued prosperity of the British cycle industry is now being disclosed by the companies whose annual reports have recently been issued for the year ending July 31st. In the statement of the big Birmingham Small Arms Co., Ltd., particular pains are taken to point out that the increased profits are due rather to a larger business in cycle parts during the past year than to the gun department of the concern and state in addition that the cycle and component parts department is "one of the mainstays of the business and one of the most remunerative assets the company possesses." In 1904 the profits of this concern were about \$250,000 and in 1905 they topped the \$400,000 mark, dropping back to about \$370,000 in 1906. During the past two years this company has paid five per cent. on its preferred stock and ten per cent. on the ordinary with a bonus of \$1.25 per share. The rate was the same in 1904 but the bonus was only about 50 cents. In order to avoid fluctuations in the dividends and maintain the value of the stock, a sinking fund was created and the increase in the earning is more apparent when it is considered that in 1904 but \$25,000 was set aside, leaving only \$5,000 to be carried forward, whereas at the end of the past year \$75,000 was set aside and \$55,000 carried forward.

The showing of the Premier Cycle Co., Ltd., one of the leading Coventry firms, is even more favorable. From July, 1904, to July, 1905, it turned out 63,000 bicycles, but in the year ending July, 1906, its output had increased to 73,500. These figures represent high-grade machines, as when the epidemic of price-cutting set in a few years ago the Premier interests organized a subsidiary company to manufacture and market cheap machines and the directors' report states that this enterprise has also been successful. While the number of good quality bicycles only increased by 10,500, the gross profits during the same time advanced from \$345,000 to \$435,000, in addition to which operating expenses had been decreased by \$40,000 as compared with the year previous despite the much larger output. As a result the market value of the stock has been enhanced by about \$45,000, and it is the belief of the management that further economies may be effected which will tend to put the business on a sound paying basis.

What is true of the larger firms also holds good where their smaller competitors are concerned. As an instance of this may be cited the Raglan Cycle & Anti-Friction Ball Co., Ltd. This concern was first organized in 1896 and from that time until

about 1902 paid annual dividends ranging from 2½ per cent. to 15 per cent. The company was re-organized in 1904 and the showing for the past year is better than any since 1901, the net profits for the year being in excess of \$20,000 as compared with about \$5,500 last year. This is on a capital of \$200,000, and represents the net value of the earnings after the deduction of all standing charges such as depreciation, income tax, interest on debentures and the like, these amounting to \$15,000 so that the company's gross earnings for the year were \$35,000. The annual reports of other British bicycle making firms, both large and small, are practically all of the same tenor.

The James Cycle Co., Ltd., of Birmingham, another of the smaller companies, has had a favorable year and its report conclusively shows that it is possible to market a high grade machine with fittings of good quality throughout at a profit in face of the competition brought to bear by the flood of nameless machines. This company fits Dunlop tires to all its bicycles and equips them with first class accessories in other respects. The company's annual report shows a profit of \$25,000 despite the fact that its plant is small and not equipped with facilities to permit of a larger business.

Increase of Vulcanizing Facilities.

Even though they be few and far between and not of any great weight at that, the automobile has brought with it some advantages for the cyclist. In former days when a tire became badly gashed it was done for unless sent to the makers for repair and all manufacturers were not willing to undertake such work. Now every roadside repairman is equipped with a vulcanizing outfit to repair automobile tires and the addition of a mold or two of the proper dimensions puts him in a position to perform the same service for bicycle tires as are necessary to the maintenance of their far larger brothers. Barring accidents, the life of the average bicycle road tire is as lengthy as even the most economical of individuals could desire, but with this aid their life may be indefinitely prolonged even after having suffered an injury that would formerly have ended their days then and there.

Glass Beads for a Short-Circuit.

The mother of Invention certainly is doing a lot to sharpen the wits of those concerned with motorcycles and other vehicles of the sort. Instances of the sort continue to multiply. One of the most recent has to do with the motorist caught on the road with a bad short circuit and no insulating tape to help him out. In his dilemma he recalled that glass was a splendid insulator and forthwith purchased a supply of glass beads at a wayside notion store. Then stripping the wire clean, he strung the beads on it and, according to the story, rolled merrily on his way.

COMBINING THE TWO VALVES

Ingenious Effort in that Direction and how it is Designed to Operate—Drawbacks that are Suggested.

It has long been recognized that were it possible to combine the functions of inlet and exhaust in a single organ of distribution, the action and efficiency of the internal combustion motor would at once be greatly increased. More than one inventor has turned his attention to the subject, and as a result several forms of combination valve have been developed. For the most part, these have involved what has been in reality a double valve, the inlet and exhaust being concentric. In one or two instances, however, devices have been produced in which a veritable unit valve has been made to do double duty. So far as is known, none of them have ever been put to regular use. A re-development of the same idea is seen in the recently patented valve of Louis Saussard, of Paris, in which a single poppet valve is made to control the distribution of both gases in what appears to be an effective and economical manner.

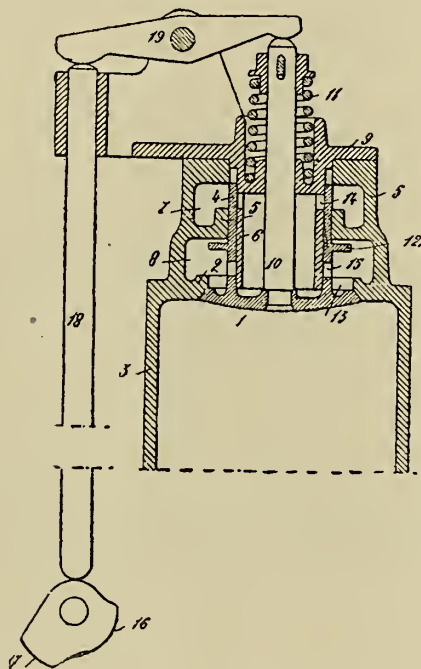
As seen in the accompanying drawing, the valve proper is made of a head affixed to a stem, spring retained, in the usual manner, and a cylindrical body containing two sets of ports and an out-turned flange near the bottom, which is adapted to seat in the cylinder head in its extreme position. The cylinder head is pierced in but one point where the valve is seated. Above, however, are two passages, one above the other, the one being in communication with the inlet and the other with the exhaust. A slight movement of the valve serves merely to open the valve and permit communication with the exhaust. A further travel, however, brings down the flange upon the outside of the valve to seat on the cylinder opening thus closing the exhaust, at the same time permitting the live gas to be drawn in through the body of the valve and the two sets of ports which now register with the cylinder, and with ports in a concentric sleeve, carefully located for the purpose.

More in detail, it is seen that 1 is the head of the valve proper, which is seated at 2, in the head of the cylinder. The cylindrical portion of the valve, 4, slides between the two concentric guides, 5 and 6, the outer one being integral with the metal forming the two ports or chambers, 7 and 8. The cover, 9, guides the valve stem, 10, and carries a spring to hold the valve against its seat under normal conditions. The flange 12, formed about the body of the valve, is adapted to close the opening, 13, when the valve is moved to the full length of its travel. Thus a slight movement, simply serves to open communication between the cylinder 3, and the port 8, allowing the exhaust to take place. A further movement,

however, serves to close the port 13, while at the same time, the ports 14 and 15, formed in the sleeve 6 and in the body of the valve, are made to register, establishing communication between the interior of the cylinder and the inlet port 7.

With the common form of four-cycle engine, the movement of the valve may be accomplished by means of a two-throw cam, together with the usual tappet rod and rocker arm, and, as will be seen, the mechanism external to the cylinder is no more complicated than is required for each of the valves commonly employed.

The obvious drawback to any valve of this general nature is due to the effect of



the heat. Generally speaking, it is considered that for the internal combustion motor the slide valve in any of its forms is well nigh prohibitive on this account. Yet on the other hand, it will be noticed that in this case, the sliding part of the valve is employed in handling only the cool inlet gases, and on this account it may be taken for granted that the heat of radiation would not be sufficient either to cause binding or leakages, in the design and construction contemplated by the inventor. Nevertheless, the arrangement is one, which, however pleasing it may be to examine, would probably be viewed by the average engineer with considerable distrust, until it has been seen in actual operation.

Probably no man gets less service and less satisfactory service beside out of his machine than he who is incessantly tinkering with it. The machine that is always being fiddled with is never in order and never runs well. The rider who knows his mount and knows the various whys and wherefores of its mechanism is content to let well enough alone except when positive derangement makes attention necessary.

TOPLIFF'S EXPENSIVE PURCHASE

He Bought on the Installment Plan and Before he got Through he went to Jail and is Wiser Now.

James Topliff, of South Manchester, Vt., recently got himself in a lot of trouble over a bicycle which he "owned and did not own." The bicycle was bought from C. E. House, the dealer taking a lien on the machine until it should be paid for in full. After buying the machine Topliff lost his position and being without cash he looked about for something to convert into ready money and hit upon the bicycle.

A purchaser was found and Topliff got \$10 for it. The new owner soon learned that the wheel was not paid for in full and reported to House, to whom he gave the machine, at the same time remarking that he would get back his \$10 from Topliff. When the erstwhile new owner could not find Topliff, he had a warrant sworn out for his arrest and it was given to a local constable to serve.

The warrant was held by the constable for over a week and in the meantime he learned that Topliff was working in Hartford. Topliff had learned that there was a warrant out for his arrest and he went to Manchester and paid House the balance that he owed. The next day the man to whom the bicycle was sold for \$10 came to House and got it and it was supposed that the incident was closed.

The constable, however, had not been informed of the change of affairs and on Thursday of last week he went to Hartford, located Topliff and brought him to Manchester, where he spent the night in jail. The next morning he was brought into court and while it was shown that he was not guilty at that time, he was guilty when the warrant was issued, and the judge fined him accordingly. It cost Topliff \$15.

Ignition Controlled by Piston.

Still another form of automatic make-and-break spark plug has just been introduced in one of the foreign markets under the name of the "gearless." Unlike most of its class, however, its action is not magnetic, nor in any way dependent upon the action of the current, but is controlled mechanically by the movement of the piston. A plunger, insulated from the body of the plug, and stationary, has a disc affixed to its lower extremity, upon which rests a moveable sleeve, pierced with a series of holes. Through this and the plunger contact is made, and a constant current flows except when the piston reaches its uppermost point. Then, however, it strikes the base of the sleeve, raising it slightly, and breaking the contact. The spark thus formed within the sleeve is communicated to the charge through the holes which surround it.

A Demonstration of Our Claims of Durability of the National

A few days ago we received from one of our old customers a National, which he had sold in 1896, and which had been in continuous service ever since.

He sent it to us as a sample of National durability.

After it had been ridden over 17,000 miles, its owner decided to try for the 300 and 400 mile records, and succeeded in breaking both of them.

This bicycle has been ridden over 50,000 miles and contains the bearings which were sent out in it originally.

The cups and cones to-day are as bright and free from blemish as when new.

It's good for another 50,000 miles, but we will keep it as tangible evidence of results from using good materials.

There are thousands of Nationals just like this one.

Nationals to-day are made from the same quality of materials.

We have always been believers in good bicycles, and as every machine we make carries our trade mark, we cannot afford to cheapen their construction.

Are YOU Riding or Selling a Bicycle of the Sort?

NATIONAL CYCLE MANUFACTURING COMPANY

BAY CITY, MICH., U. S. A.

**Comfort
Resiliency**

and 45 per cent. Saving in Tire Maintenance are the essentials
of the ever reliable

Fisk Bicycle or Motorcycle Tires

Like all Fisk products, they have a Quality and a Construction that is exclusive—real merit—through and through—that makes their distinct superiority apparent.

WILL OUT-LAST TWO OR THREE OF OTHER MAKES

THE FISK RUBBER CO., Chicopee Falls, Mass.

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To Facilitate Matters Our Patrons Should
Address us at P. O. Box 649.

NEW YORK, OCTOBER 13, 1906.

Danger of the Headlight.

It is absolutely imperative that something be done to mitigate the evil of the headlight glare on the open road. If the safety and comfort of the highway using public is to be considered it must either be abolished or tempered in some way. Yet, though in itself an evil, it must be regarded as occasionally, if not always, a necessary one, and hence, one which it is necessary to safeguard rather than to seek to abolish.

At first blush, it would seem that the practice of mounting upon motor cars brilliant headlights which throw a broad beam of light many feet in advance of the vehicle, is the sanest, most conscientious step in the right direction imaginable. Yet as a matter of fact, while equipping the user with an advantage which places him on a footing almost as secure as that he enjoys when traveling in daylight—so long as he uses moderate speeds—to those who are before him on the road, his very means of salvation becomes a menace of the worst kind, and to none quite so much as the cyclist. Blinded by an approaching glare he is not only sightless, but helpless, and unless his nerves be in good order, panic is apt to seize him. And with the

vastly increasing traffic at night on the good roads neighboring all cities, this menace becomes probably the worst and most pregnant danger which the advancement of self-propulsion has yet had to face.

Unlike many other features of the motor vehicle movement which may be transformed into dangers to the public under certain circumstances, its power is not dependent of itself upon abuses of privilege. For the very measure of the efficiency of the headlight to its user, also measures its detriment to his adversary on the road. The brilliancy and amplitude of the beam of light, helping the one, blinds the other, and the greater the advantage of the one in consequence of it, the greater the disadvantage of the other. Here then, is an anomaly, which is as striking as it is likely to breed trouble. Multiplying the number of machines on the road, multiplies the evil in direct ratio, until, when any great attraction draws the crowd in one direction, it is well-nigh impossible to stem the current and go oppositely. And this not because of the blockading of the highway, intentionally or otherwise, for the motoring fraternity, despite its alleged selfishness, is often cautious and considerate to a laborious degree, if not from charitable motives, at least for its own safety. Rather it is because he who would go in the other direction is absolutely blinded by the glare, and far from being able to distinguish the shapes of the other vehicles, cannot even see the road his wheels are to follow—he is helpless in the face of precaution, and imperiled by the care of others.

As to a remedy, it is obviously impossible to attempt to regulate the evil by legal enactment, at least until an amelioration has been secured which will not rob the one of his advantage while relieving the distress of the other. To snuff out the headlight would be to put both drivers on a plane of equality, to be sure, but to throw the into the blighted equality of the infirm. It would be to blind them both. On the other hand, the use of screens and deflectors which can be thrown into service when meeting traffic, is not to be recommended, since it would cast the burden of responsibility upon the individual, and permit the evil to continue under careless and reckless use. Similarly, lights which cast their beams only upon the ground directly before the steering wheels, are not to be countenanced as a cure, since their use would merely constitute a semi-relief, on

the one hand, with a loss of efficiency on the other.

The method of employing deflector blades described last week, is perhaps the most promising suggestion which has yet come to hand. In theory, it contemplates the obscurity of the light from above the plane of the beam's level. At the same time, it does not provide any hindrance to the projection of the horizontal rays, nor to their being focussed at a point at some distance from the lamp. Yet in practice, it might develop that even this scheme is of little real value. Certainly, it provides for the projection of the light to a considerable distance in a horizontal plane, and even at a great distance, the effect is blinding for the moment. Thus, in service, it might develop only a partial relief.

Yet something, either of this nature, or totally different in its intent, must be done in the way of establishing a general and positive relief. It is imperative, almost as much so as the inauguration of the long-promised good road, or the rational motor vehicle law, or even the perfect motor. What is more, it is not a thing for theorists and the press to deal with individually, but for the whole community to take up earnestly and thoughtfully. And until the day of emancipation from this blinding utility shall have come, it behooves every user of the highway to exercise his sanest judgment in the use of his lights.

Wheel bases, a topic long forgotten by cyclists, is now occupying the attention of motorcyclists and the makers of motorcycles. The tendency on the part of both is for long bases and still longer ones, making it appear that there is some danger that the thing may be overdone. It should be remembered that while a long wheel base up to a certain limit, improves the riding qualities of a machine, a short base makes for better steering and control. There is a happy medium beyond which it is not safe to go. To judge from their remarks, there are some riders who would have motor bicycles looking like single-seated tandems.

When a man becomes firmly convinced that he is the genius who is going to startle the world by improving upon perfection in the shape of a bicycle of revolutionary design, it is then that the fringe slowly begins to form on his trousers.

PROMOTER OF FOOL QUESTIONS

Repairman Places Motorcycles High in that Class and Recalls a Few Incidents to Prove His Case.

"Have you ever noticed how sorely it goes against a man's grain to be told that 'he doesn't know how to run the thing' when he has a breakdown?" asked the observant repairman of a Bicycling World representative recently. "And that's the very first thing that every one does fire at the man who brings in a machine that has been badly mussed up," he continued. "It's a natural enough question, but as a general rule the man who asks it usually knows far less about a motor bicycle than the one he is criticizing. And the way they do it, too—it's enough to rile any one and you can hardly blame a poor fellow who has been pedalling a heavy machine two or three miles to reach a repair shop for losing his temper a bit.

"It's a little bit of comedy that is enacted in the shop at least once a week on the average. Sunday is the best time to see one of those little one-act plays and if you ever happen to be around here on a nice Sunday afternoon just walk in and keep your eyes and ears open. Scarcely a Sunday or holiday passes but what something of the kind happens and the amusement unconsciously provided by the unfortunates and their critics is almost enough to repay me for having to keep open Sundays. I don't like to, but usually I do more business on the first day of the week than on two or three other days put together. That's when the business comes in and I have the rest of the week to get the lame ducks ready for the following Sunday.

"Yes, I do remember some of them," he replied in answer to a query supplementing the statement that his inquirer was not over-fond of hanging around a repair shop on a bright Sunday afternoon either. "Of course, they're pretty much all alike so far as that goes," he went on, "but they furnish amusement just the same—for all except the chief actor. Take the shop on a nice Sunday afternoon or a holiday when there are always a dozen or more hanging around, some because they have nothing better to do and others waiting for their machines to be repaired and you have both the scene and the actors, all except the leading lady—he's the fellow that comes in with the wreck and as soon as he arrives the curtain goes up. Some of the hangers-on have never ridden a machine at all, except possibly around the block on someone else's and many of them not even that—they have absorbed all their knowledge through hearing other people talk.

"The minute a man comes along pedalling his machine and stops off to ask if I can fix him up, these fellows light on him.

"'Carburettor go wrong?' asks one in a

sympathetic tone that carries an air of 'I know it all, I've been there myself' with it.

"Misery loves company and the man who is in trouble is usually very willing to confide his woes to the first man who asks a question. He generally opens up and tells them all about it without much provocation. Sort of let's himself down easy, so to speak. Wants to show them how much he knows about it and that it wasn't his fault by a long shot. The machine went wrong, that was all; couldn't be helped. But then there's the other kind that wants to be let severely alone when he's in trouble and he's the sort that furnishes the most amusement.

"'Battery go dead?' chirps up the sympathetic one who wants to show the new arrival the vast extent of his knowledge.

"And generally nothing more than a grunt that is equivalent to 'what in blazes do you want to know for?' rewards him, because the man who's in trouble seldom mistakes one of those fellows for the head of the shop. That never feazes them though. They keep right on, and that reminds me. A fellow who came in a few weeks ago did mistake one of those busybodies for the keeper of the place and he blazed right up at him, too.

"'If you're the head of this here shebang,' says he, 'why in thunderation don't you get to work and see what's the matter with the machine for yourself, instead of standing there and asking me fool questions. What is this, a kindergarten on motorcycle troubles for your benefit or did you just graduate from a correspondence school and want to try it on the dogs.'

"It did me good to see the way that fellow faded away, and so far as I know he has never come back since. I don't believe he ever rode a motorcycle in his life.

"What was the matter with the machine?

"Why, the batteries were dead—just as the butter-in had said, but that didn't make things any better. It's just like asking a man if he's going fishing when you see him loaded down with a fishing pole and a can of bait. The fact that it's true doesn't make it any the less foolish and while you couldn't tell that the batteries were dead in this case simply by looking at the machine, it sort of riles a man to be told what's the trouble when he knows it too well, already, even if the information is put in the shape of a question. Once or twice I've almost had a fight on my hands through some of these fellows getting into an argument over some disputed point. I've almost had a fight on my hands for settlement as to whether the carburettor shot liquid gasoline into the cylinder or sucked it in at the cylinder and when I told them it didn't do either they were almost ready to tell me that I didn't know anything about it.

"If I got paid for all the fool questions I'm called on to answer I'd be rich enough to close up shop at the end of the year. You simply wouldn't believe that anyone could be capable of asking the questions

that some of these fellows get off. I've got to keep a straight face and keep my temper, too, when a man comes and asks me where 'you light the thing' to make it go, and 'how do you stop it if the gasoline tank is full?' I have to be pleasant to such people because they usually turn out to be customers in the end. If a man comes to me and says he doesn't know the first thing about the machine, why it's the easiest thing in the world to explain things. Take an ordinarily bright chap and in less than an hour I can give him an understanding of the why and wherefore of most of the workings of the machine and show him how to stop and start it in the bargain, but these fellows who have such idiotic notions of the thing beforehand and who shake their heads wisely at whatever you tell them whether they understand or not, take my time and patience. Still I suppose there's no use complaining, the repairman in the city doesn't have things any better than we do in the country except that he may not find his place mortgaged to the fellows who used to hold down the cracker barrel lid at the grocery store. Ever since I opened up here my place has been a regular hang-out for all the young fellows in the town whether they ever had any ambition to own a motorcycle or not."

To Prevent Pitting of Points.

For contact points which are subject to pitting under the influence of the primary current, a wise plan is to transpose the leads from the battery occasionally, fastening the negative wire to the positive pole and the positive wire to the negative, thus reversing the polarity of the current. As is well known, the pitting action is due to the formation of a minute arc at the time of rupture. This, like the arc employed in the ordinary brush, or arc lamp, tends to form upon one terminal a cone, and on the other a small cup which roughly corresponds with it in shape. Naturally, to alter the direction of flow of the current, tends to counteract this effect, and by changing at frequent intervals, the points may be maintained in good condition almost indefinitely.

When the Horn Wheezes.

Often enough, the slight obstruction which causes a reed horn to give forth a sickening wheeze instead of a clear tone may be removed by gently tapping the outside of the air pipe close to the neck of the horn, at the same time vigorously working the bulb. At other times it will be necessary to remove the tube and pick from beneath the tongue of the reed some little particle of dirt which has wedged there. In case the tongue fails to stand out from the opening of the reed, a pin should be slipped under it cross-wise, and the end bent down with pliers. This treatment, unless carried too far, will generally produce the desired result.

SKIPPED WITH THE GATE RECEIPTS

Scandal Attaches to France's First Six Days Grind—Sensation Causes Crowds to Double Each Day Thereafter.

Six-day bicycle races seem fated to be characterized by a scandal of some sort or other. That was the case in last year's grind at Madison Square Garden and also was the case as Toulouse, the scene of France's first six-day event. Big crowds had been in attendance for the first two days and the gate receipts were consequently heavy. Imagine then the consternation to both the riders and spectators when, during the fifty-first hour, Gregory, one of the riders, announced through a megaphone that the six-day race would come to a sudden end as the promoters had skipped out with the gate receipts. Immediately a scene of wildest confusion ensued. The riders stopped immediately, they had as yet not been paid, and a panic threatened. Vanoni and Thuau remained the coolest of the lot and after long discussions they suggested that the best thing for the riders to do was to continue the race on their own account. So the race started again at 9 p. m., on September 27th, with the riders in the same positions in which they had stopped several hours previous. The result of the race was of more than usual interest in America because of its probable effect on the make-up of the foreign teams in the New York grind in December.

As recorded in last week's *Bicycling World*, the six-day race at the Velodrome Bazacle, in Toulouse, was run on the same plan as the annual New York affair, and at the ending of the first 24 hours Georget brothers and Wattelier-Landrieux were tied for first place with 445 miles 99 yards, and two teams were tied for second place—Gauban-Germain and Payan-Gregory—with 444 miles 1,685 yards. Six other teams were strung out behind. The track at Toulouse measures 406 metres or 444 yards, almost four laps to the mile, so it is seen that it is no easy matter to gain a lap on the field.

During the twenty-sixth hour the Georget brothers went out for a lap and after a terrific struggle succeeded in gaining it, Gauban being the only rider that was able to follow them. This placed the Georget brothers one lap ahead of the field with the teams of Germain-Gayban and Wattelier-Landrieux tied for second place. During the thirty-sixth hour Habert went out for a gain of a lap which moved his team from ninth to seventh place.

After that things settled down in usual six day fashion and it was not until the forty-third hour that the next big sprint was started. Gauban wanted to place his team undeniable in second position and he led the sprint. He had almost gained the

lap before he tired and the Georget brothers overhauled him, but in the mix-up Wattelier-Landrieux, who had been tied with Gauban and Germain, lost a lap, so Gauban accomplished his object. At the end of 48 hours or the finish of the second day Georget brothers headed the score board with 837½ miles. The position of the other teams, showing the laps they had lost, is as follows: Second, Gauban-Germain, 1 lap; third, Wattelier-Landrieux, 2 laps; fourth, Payan-Gregory, 61 laps; fifth, Soulie-Chartier, 66 laps; Gombelle-Granier, 73 laps; seventh, Habert-Poiry, 234 laps; eighth, Vanoni-Thuau, 336 laps; and ninth, Pietrois-Egeldinger, 708 laps.

It was early the next morning that Gregory discovered that the promoters of the race had taken characteristic French leave with the gate receipts, and at 9 p. m. the riders re-started. Although it was a deplorable thing that the scandal occurred it was perhaps a most fortunate thing for the men entered in the grind, for they fared much better than they otherwise would. Where before the interruption 5,000 people attended daily, after the promoters absented themselves 10,000 came out each day to sympathetically aid the riders.

At the ending of the third day the score in miles was as follows: 1, Georget brothers, 1,216.47; 2, Germain-Gauban, 1,216.20; 3, Wattelier-Landrieux, 1,215.96; 4, Soulier-Chartier, 1,186.15; 5, Habert-Poiry, 1,113.04; 6, Gregory-Payan, 982.39; 7, Vanoni-Thuau, 905.97; 8, Pietrois-Egeldinger, 868.9.

Two more teams quit at the eightieth hour, Vanoni and Thuau and Payan and Gregory, and the former team were somewhat chagrined to find that their manager had decamped with all their spare bicycles.

For the next three days Gauban and Germain tried hard to gain back the lap they had lost to the leaders, but to no avail and the ending of the sixth day and the race found the Georget brothers still leading by one lap. The final score follows:

1. Georget Brothers.....	1,994.93	miles
2. Gauban-Germain.....	1,994.60	"
3. Wattelier-Landrieux.....	1,994.23	"
4. Soulie-Chartier.....	1,818.32	"
5. Habert-Poiry.....	1,733.80	"
6. Pietrois-Egeldinger.....	1,303.21	"

Nine Survive 150-Mile Run.

Nine of the twelve members who started in the Providence Motorcycle Club's annual run over the Providence-Worcester-Boston triangle on Sunday last, 7th inst., completed the 150 miles in good shape and in good season. Although the rain of the night before made the first leg of the triangle rather muddy, the nine survivors finished before 5:30 p. m., the start having been made at 7:30 in the morning. B. A. Swenson, who seems not to ride the same machine twice in succession, was first to arrive. For the occasion he rode a motorcycle having a 3 horsepower De Dion engine, which he himself put together. The other survivors were J. L. Pickering, 2¼

Indian; A. Heilborn, 4 horsepower Orient; F. Labonte, 2½ horsepower Indian; C. Loftus, 2¼ horsepower Merkle; J. Nisbet, 2¼ horsepower Indian; E. L. Buffington, 1¾ Merkle; A. J. Fisher, 2 horsepower Thomas, and E. Waite, 2 horsepower Yale. F. Wilkinson was put out of the running by a fall in the mud near Woonsocket and tire trouble accounted for the failure of D. Reilly.

Chicago Motorcyclists Find a Hill.

Chicago, that is to say, the Chicago Motorcycle Club, will hold its first hill-climbing contest on Saturday next, 20th inst., a fact which may startle those familiar with the billiard table levelness of the Windy City. But the climbing is not to occur within or near the city itself. It will be done at Algonquin—three hours distant by rail—where a few weeks since, after the State had been fine-tooth combed an elevation worthy of being styled a hill was discovered. In fact, there are two hills at Algonquin—Perry hill, 465 feet long, and Phillips hill, almost three-quarters of a mile in length, and it is on one of these mounds that the Chicago Motorcycle Club will hold its contest. The event is limited to single-cylinder machines of 49 cubic inches cylinder displacement or less. Each contestant will be allowed two trials from a flying start. The event is to be held under the rules of the Federation of American Motorcyclists, which require that in hill-climbing contests competitors shall weigh not less than 120 pounds.

Century Run for Motorcyclists.

The New York Motorcycle Club has set its annual open fall century run for Election Day, November 6th. It will be run over the route from New York to Bedford, N. Y., and return, which includes the best roads and the prettiest scenery to be found within easy reach of New York. Despite its attractions it is little known to and seldom frequented by cyclists or motorcyclists, the N. Y. M. C. being almost alone in its knowledge and appreciation of the route. For the century run on November 6th, silver fobs will constitute the souvenirs. Capt. A. J. Bendix, 800 Third avenue, is in charge of the affair. The club's regularity and speed judgment run, which was again postponed because of rain last Sunday, will occur to-morrow.

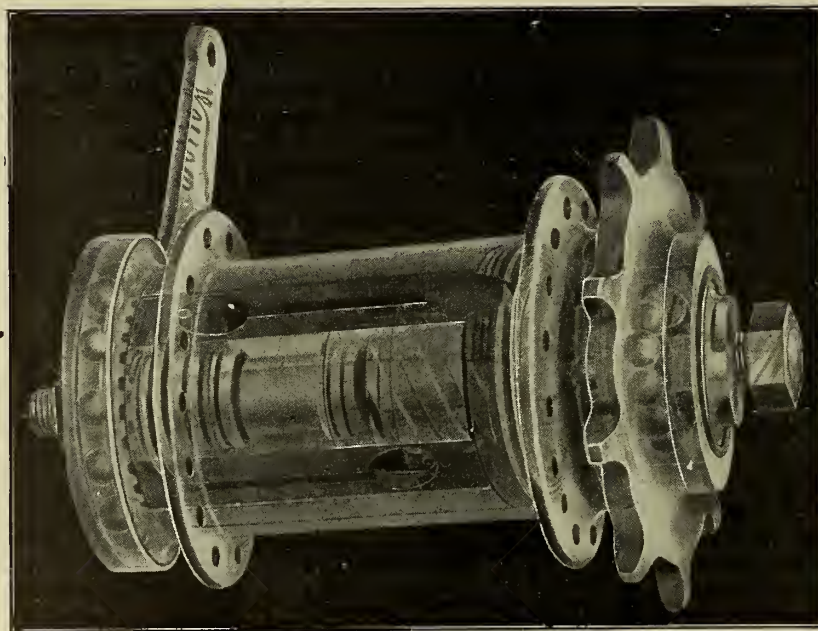
Tubbax Breaks Hour Amateur Record.

Profiting by the presence of Pillas, the well-known French pacemaker, at Antwerp, recently, Tubbax, the Belgian amateur who rode second to Bardonneau in the world's 100 kilometres' championship at Geneva, attempted to beat Audemars' world's hour record set up in 1903. He succeeded in adding 813 yards to the young Frenchman's performance, Tubbax covering 43 miles, 1,246 yards, in the 60 minutes. The performance was officially timed by a representative of the Union Cycliste Internationale.

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WET AND WAILS MAR ROYS' RACE

Rain Scares off Many Entrants; the Wails Caused by Pacing, Pushing and a Close Finish—Winner Disqualified.

Frank W. Eifler, a member of the Roy Wheelmen, won the first time prize, a Columbia racing bicycle, in the postponed 25-mile championship road race—the Inter-State Cycling Derby—held by that organization at Valley Stream, L. I., last Sunday, 7th inst. If Eifler is very keen on sportmanship he will not keep the prize. For he obtained it under conditions that left a



FRANK W. EIFLER

streak on his victory. During the progress of the race Eifler fell—he ran over a dog. At about that time there happened along one of the officials of the race who had satisfied a fondness for ginger ale. It made him feel in mellow mood and disposed to lend a helping hand to unfortunates. Eifler, because of the dog, was one of these. The official was on a motor bicycle and when he extended the helping hand to Eifler, Eifler did not say nay. The hand was placed on his shoulder, the throttle of the machine was opened wide, and Eifler was pushed at a two minute clip until he had caught up with his division and thereby enabled to score.

Take it all in all, the event last Sunday cannot be hall marked in the book of fame the "howling" success it gave every promise of proving. There was plenty of howling but it was in protestation, and the odoriferous fumes that arose are noxious even yet.

The promoting organization had planned to make the Inter-State Cycling Derby an annual championship road race, but if the present officials are in charge of the racing affairs of the club when another twelve-month rolls around it is more than certain they will have nothing to do with it. They worked night and day for weeks in prepar-



JOHN KRAYCI, WHO WON AND WAS DISQUALIFIED

ation, but not in expectation of the mud-bath of calumny into which they were ruthlessly plunged. In every race there is bound to be more or less friction but seldom is dissatisfaction writ as the keynote feature. It took a race meet to demonstrate to some of the Roy Wheelmen that they are the embodiment of all that is bad, mean, pernicious, and dishonest and now that they have found out they are all villains—it must be so according to the disgruntled riders—it is up to them to reform. A veritable deluge of protests—nearly every rider in the race thought he had good and sufficient cause to kick, and kick demonstratively—kept the officials busy until long after all morally inclined Long Island fowls had sought their roosts. Even the winner of the race was protested and ultimately disqualified. The primary cause of the voluminous grumble that arose was the fault of the handicapping committee. They did their work well, too well, in fact, and over thirty riders finished neck and neck, so that it was impossible to pick more than the first half-dozen in their correct respective positions. Such a finish has not been

witnessed in years and the 1906 Inter-State Cycling Derby will be long remembered as one of the very few instances where so great a finish has marked a handicap road race.

When, last Sunday, about noon, the clouds dropped rain, some of the officials were in favor of postponing the race until the following Sunday, but as so many riders, including a number who had come some distance to ride, clamored for a race, it was deemed best to hold it, although only 74 of the expected 250 riders lined up for the battle.

At exactly 3:55 p. m., the starter sent the two limit men—Krayci and Zeile, on their way, followed at one minute intervals by the other divisions. Only two three-minute men started, George Schmoll and "Ernie" Grupe, and the former quit after riding a short distance. Grupe was so strong that he broke his chain in three pieces after going



URBAN MACDONALD L. J. WEINTZ

six miles. Then followed the scratch men, fourteen in all, and the few hundred spectators went inside where it was warmer and prepared to await the return.

The wind blew from the west and the men fairly flew down the oiled stretch of road from Valley Stream to Seaford, twelve and one-half miles distant, the turning point. Six miles out, Charles Nerent, who was expected to finish well up, punctured, his rear tire picking up a nail. At Seaford, rider "No. 1," John Krayci, of the Cork Pullers Club, had shaken his fellow limit marker and was the first to round the stake, followed by Mike Schulman and Ernest Olufs, both 14-minute men. Then came Gunzer, F. MacDonald, Zeile, Allen, Fuchs, Hensch, Young, Joe Goodman, Blake, Lamphere, Jr., and Horner. A few minutes later the 8 minute bunch, led by A. R. Ives, of Meriden, Conn., who was riding like a horse, with Hawkins, Ander-

son, Missimer, Rhodes, C. Kind and Patsy Donato hard at his heels, turned the point. The riders then straggled by in twos and threes and groups until the scratch men swooped down in a sprint. Peter J. Baum turned the stake first, followed in order by Otto C. Brandes, L. J. Weintz, A. R. Wilcox, Urban MacDonald, J. M. Eifler, Gus Duester, Walter Raleigh, Tony Bizzarri, Watson J. Kluczek, F. W. Eifler and F. C. Graf. Sixty-six riders turned at Seaford.

In policing the course at the finish the Roys introduced an innovation by appointing ladies as marshals and Mrs. MacDonald, Miss Genevieve MacDonald, Miss Weeks, Mrs. Paul Thomas, Miss West and others kept the over inquisitive in line better than "mere man" could have done. "Won't you please stand back and give the riders room?" said half coaxingly, and accompanied by a smile, proved an effective weapon.

"No. 1 will win the race," yelled an excited Cork Puller to a fellow near-dentist across the way.

An instant later a solitary rider was noticed down the road. Then three others appeared to be with him, but they darted off the road back of a barn just as John Krayci—number one—pushed over the tape. A minute later Ernest Olufs, an Association rider who had started from fourteen minutes, came up and exactly half a minute more and a big bunch rushed by.

"145-146-114:141-142-145," yelled the scorers and pencils flew, but that was all the numbers they got and the rest, if more were called, were lost in a sound of whirring wheels as they dashed across the line. No man living could have picked that finish. More than thirty riders with less than a foot separating any of them, it contained. That was where the trouble began, as everybody imagined he had beat everybody else.

It was not long after that the scratch men finished in a neck and neck dash, Frank Eifler beating Louis J. Weintz, New York A. C., and Urban McDonald, Tiger Wheelmen, by less than a half-wheel's length, and, with only a hair's breadth between them, there followed Raleigh, Wilcox, Fisher, Brandes, Joe Eifler, Kluczek and Graf.

Although Krayci won the race he will not wear the gold medal or call himself champion. That honor falls upon Olufs who finished second, for Krayci was disqualified by the referee, after it was proven that he had been paced. It was Krayci's first race and he was not thoroughly familiar with the rules, so that it must seem disheartening to him. Olufs, the champion, has been riding for only a year and this was the first race in which he ever received a prize. He is a Brooklyn lad and a member of the Century Road Club Association, and is 17 years old. He won the race on a Pierce bicycle, geared to 88 and fitted with Palmer tires.

Fred H. Peterson told a hard luck story. In making the turn at Seaford he collided

with C. F. Hansen, a fellow club member, and when he went down he pulled both feet out of his racing shoes. In getting them on again, Peterson lost several minutes and finished just too late for a prize. Peterson was riding like a Kramer when the unfortunate accident occurred and he was so equipped that he expected to break the record and win the time prize.

The reason that Eifler, the time prize winner, was not disqualified was because the protestants failed to specify the correct charge until the time for protests had elapsed. They first charged him with "accepting pace." He denied it; so did the man with the motorcycle and the helping hand. Both were ready to swear to it, so there was nothing for Referee Castles to do but to give Eifler the prize. Later, the persons who saw Eifler being pushed signed a written declaration in which they particularly specified the offense. Then the man who had extended the helping hand owned up that he had "pushed" Frank Eifler—not "paced" him. His denial was merely a hair-splitting technicality which has served him to poor purpose. An effort will be made to have Referee Castles reopen the case, and although it is bad ethics for an official to alter a decision once made, the unusual circumstances surrounding this case and the fact that the referee was unacquainted with the facts until after the prize had been awarded, would seem to justify him in reconsidering his decision. In the event of Eifler's disqualification the Columbia bicycle will go to Louis J. Weintz, of the New York Athletic Club, and all the time prize winners will move up one place. Weintz will be more than satisfied because he rides a Columbia bicycle. The summary of how the riders finished follows:

Pos.	Rider.	Club.	Hdcp.	Time.
			M.S.	H.M.S.
1.	E. Olufs,	C. R. C. A.	14:00	1:17:10
2.	C. M. Schlosser,	I. A. C.	5:00	1:08:40
3.	C. Ericson,	Mon. C. C.	5:00	1:08:40½
4.	A. E. Rhodes,	Roy W.	8:00	1:11:40½
5.	R. Hughes,	Edge's W.	5:00	1:08:40½
6.	Geo. Glunz,	C. R. C. A.	5:00	1:08:40½
7.	J. B. Hawkins,	C.R.C.A.	8:00	1:11:41
8.	J. Goodman,	Imp. A. C.	13:00	1:16:41½
9.	S. R. Morrison,	Edg. W.	6:00	1:09:41½
10.	W. Voehringer,	Edg. W.	8:00	1:11:41½
11.	Chris. Kind,	Edg. W.	8:00	1:11:41½
12.	O. J. Steih,	Imp. A. C.	6:00	1:09:42
13.	B. Young,	N. Y. City.	12:00	1:15:42½
14.	P. Kury,	Roy W.	9:00	1:12:42½
15.	J. Blake,	Brower W.	13:00	1:16:42½
16.	C. Hansen,	C.R.C. of A.	5:00	1:08:42½
17.	F. McDonald,	N.Y. City	12:00	1:15:43
18.	H. Zeile,	N. Y. City.	15:00	1:18:43½
19.	P. E. Barczik,	Brooklyn	9:00	1:12:43½
20.	A. Horner,	N. Y. City.	11:00	1:14:43½
21.	W. Fuchs,	N. Y. City.	11:00	1:14:43½
22.	A. R. Ives,	Meriden, Ct.	8:00	1:11:44½
23.	H. F. Missimer,	P'k Cl.	9:00	1:12:44½
24.	A. Anderson,	N. Y. City	8:00	1:11:44½
25.	W. Lamphear,	B'w'r W.	10:00	1:14:10
26.	M. Schulman,	Br'klyn.	12:00	1:16:11
27.	B. Evessen,	C.R.C. of A.	7:00	1:12:01
28.	A. Allen,	Brower W.	12:00	1:17:23
29.	P. Donato,	N. Y. City	9:00	1:15:46
30.	Fred Hlof,	N. Y. City.	13:00	1:19:53
31.	P. Hensch,	Jersey City.	11:00	1:17:54
32.	H. Hinek,	C. R. C. A.	4:00	1:10:58
33.	Nick Kind,	Edge. W.	5:00	1:12:00
34.	F. Peterson,	C.R.C. of A.	5:00	1:12:02½

Time Prize Winners:

1.	F. W. Eifler,	Roy W. scratch	1:07:04
2.	L. J. Weintz,	N.Y.A.C.	1:07:04½
3.	U. MacDonald,	Tiger W.	1:07:04½
4.	W. Raleigh,	Nat. A. C.	1:07:04½
5.	A. R. Wilcox,	Nat. A. C.	1:07:04½
6.	F. Fisher,	Cork Pullers	1:07:05
7.	O. C. Brandes,	Edge. W.	1:07:05½
8.	J. M. Eifler,	C.R.C.A.	1:07:05½
9.	W. J. Kluczek,	Roy W.	1:07:05½
10.	F. C. Graf,	C. R. C. A.	1:07:05½

Does 105 Miles in Two Hours.

Paul Guignard, the French pace follower, who on July 30th last, boosted the world's hour record up to 59 miles 30½ yards, is undoubtedly the king of pace followers for the present season. At Leipzig, on September 30th, Guignard broke the world's two-hour record of 99 miles 580 yards by 5 miles 1,375 yards, thus setting up a new record of 105 miles 195 yards, an average speed of 52½ miles an hour. The race was witnessed by 15,000 people and all the contestants rode in good form. Contenet, the former holder, led until the 90th kilometre, when Guignard went to the front, after which he was not headed. Walthour, the American, rode in hard luck. He slipped on the steep banking of the track during the first half hour when he was practically even with the other three contestants and lost considerable ground. He pluckily remounted and finished the race, riding in the two hours, 94 miles 389 yards. During the time Contenet covered 99 miles and Dickentmann 98 miles 1,201 yards.

Motocycles the Feature at Kansas City.

With fourteen starters, the ten-mile motorcycle race was easily the feature of the automobile race meet at Kansas City on Wednesday of last week. At the start C. Halm, astride an Indian, drew the lead on the field and maintained that position for three miles, with L. C. Shellabarger, also on an Indian, in second place, and Lorenzo Dailey, Metz, running third. At five miles Dailey began to creep up and at seven had passed Shellabarger and was hot foot after Halm. Dailey passed Halm in the backstretch of the eighth mile and from there had an easy romp home, Shellabarger coming across second and Halm third. The time was 14:52½.

Nat Butler Again in the Running.

After an enforced idleness of two months, Nat Butler, the veteran American pace-follower, rode his first race since breaking his collar-bone at Paris, at Madebourgh, on September 23, in a 10-kilometre race. Butler was not in the best of form but he managed to give Bruno Demke a hard fight for first honors, the German winning out by less than fifty yards. Ivan Goor finished third, nearly a lap behind the leader. The time was 8:21.

"Motorcycles and How to Manage Them." Price, 50 cents. The Bicycling World Co., 154 Nassau Street, New York City.

TEAMS FOR THE SIX-DAY GRIND

Fewer but Better Foreigners to be Brought Over—Likely Make-up of the American Pairs Who will Compete.

Although the exact date of this year's six-day grind has not yet been set it is likely to occur during the first week of December, as was the case last year, which would make it from December 3 to 8, inclusive, and that P. T. Powers and Harry Pollok, who manage the race, will this year make a radical departure in the selection of teams, is certain, judging from the news that has reached the *Bicycling World* office from Paris.

Powers usually leaves the selection of the foreign teams to Robert Coquelle, a prominent Parisian manager, and in his letter to France a few weeks ago said that he wanted but three teams this year, and as they must be the best, he asked Coquelle to cable a list of names of riders that would be suitable. Powers added that cycling interest in America was so great at the present time that more American riders than ever before were clamoring for a chance to ride in the six-day grind, and that in consequence he would not require so many Europeans.

Coquelle cabled these names to the New York promoter: Petit-Breton, Marcel Cadolle, Walter Rutt, Carlo Vanoni, Arthur Vanderstuyft, Johan Stol and the Georget brothers. Breton, well known here, was excused from military duty this year, and he has showed good form all season, winning several notable long distance races. Marcel Cadolle will be a newcomer but to those who have kept in close touch with racing affairs on the Continent, the ex-amateur will be no stranger. Cadolle says he will not come unless allowed to team with Breton, so this team seems pre-assured. Walter Rutt has ridden in one six-day race, and while the German is preëminently a sprinter of the first order, he is also a stayer. If Rutt is selected he will probably be mated with Vanoni, the American-French-Italian-Swiss rider, who was put out of the running last year when his partner, Gougoltz, was injured.

Coquelle says that Vanderstuyft wrote a "modest" testimonial of his ability to be forwarded to Powers. He describes himself as the middle-distance champion of the world—where he got the title Vanderstuyft does not explain—and that he has defeated Walthour and every other rider of note. (sic.) Stol wants to come over again and if Vanderstuyft is selected the other doubtless will be. A brand new team that will surely make the trip across the pond are Georget brothers, Leon and Emil, of Châtellerault, who have just won the first French six-day race.

About the American riders, it is not questioned that more racers and near-racers are so anxious to get into the big race this

year that they are willing to ride for almost nothing. What teams will be selected is yet a mystery that even Powers will not clear off. Of course, rumors of all kinds are flying around fast and furious and there is considerable talk that Root and Fogler, winners of last year's race, will part company. It is stated on good authority that Powers wants Root and McFarland to ride as a team, but a recent letter from the elongated San Joséan to Fogler showed that he is just as willing to ride with the blond Brooklynite. If Root and McFarland team, Fogler will probably ride with either Walter Bardgett or Hardy Downing, if he rides at all; indeed, he is not over anxious. One team is a certainty, and that is the Bedell brothers, as they already have signed. It is stated that Robert J. Walthour and Matt Downey will form an alliance, and if so, there are those who will have to keep their eyes open and legs moving. James F. Moran is said to have hooked up with A. W. MacDonald, of Boston, and Rupprecht and Krebs have been talking things over confidentially for the past few months. Hill and Halligan, the ex-amateurs, are spoken of and it is said that Urban MacDonald and Alfred Ashurst may ride as a team.

In addition to all the above mentioned probabilities the following riders have made overtures to the management, it is stated: Charles Jacobs, Marcel Dupuis, John Peters, W. R. Lee and Carl Limburg, of New York City; S. H. Wilcox, W. E. Samuelson and Saxon Williams, Salt Lake City; Ben Munroe, Memphis, Tenn.; Elmer J. Collins, Lynn, Mass., and Stinson and Mettling, of Boston.

Rain Causes Vailsburg Postponement.

Because of inclement weather last Sunday the regular meet at the Vailsburg board track was postponed until to-morrow (Sunday). The principal event to be run off is the final race of the amateur championship series, and the distance is one-quarter mile. Frank Kramer, the new pace-following star, will also meet Elmer J. Collins, the undefeated Lynn rider, in a fifteen mile motorpaced match. Unless the weather changes for the better to-morrow's meet may be the last one for this season as it is getting rather cold to ride upon an open track. The management has a meet scheduled for the afternoon of Election Day and an effort is being put forth to have the middle-distance motorpaced championship run off on that day. This event would not affect the national championship standing as no points are awarded, the race being solely for the title.

Early Leads Century Competition.

Harry Early, of Bayonne, N. J., still leads in the National Century competition of the Century Road Club of America, for the nine months ending September 30th, as disclosed by the report of Noble C. Tarbell, Lake Geneva, Wis., chairman of the

roads record committee. Herman H. Hintze, of New York City, has moved up to second place and Andrew Clausen, of Chicago, is third. The standing of the others is as follows: 4, Alfred H. Seeley, New York City; 5, Fred E. Mommer, New York City; 6, Ernest Grupe, Brooklyn; 7, Fred I. Perreault, Malden, Mass.; 8, Emil Leully, West Hoboken, N. J.; 9, A. D. Rice, Winthrop, Mass.; 10, Fred H. Peterson, Newark, N. J.; 11, Fred Pfarr, New York City; 12, Henry H. Wheeler, Pomona, Cal.

In the mileage Hintze heads the list with Early in second place, while A. Seeley, who has been sick with appendicitis, and has not ridden since July and who will not be able to ride for six months, is in third position. The order of the others is: 4, F. I. Perreault; 5, F. E. Mommer; 6, H. H. Wheeler; 7, E. G. Grupe; 8, N. O. Tarbell, Lake Geneva, Wis.; 9, James H. Clomes, Paterson, N. J.; 10, H. E. Grupe, New York City; 11, Fred Pfarr; 12, William J. Hampshipe, Los Angeles, Cal., and 13, C. E. Hylander, New York City.

80,000 Miles in Thirteen Years.

"The *Bicycling World's* recent reference to Mr. Henry E. Ducker's having become a convert to motorcycling after having ridden a pedal bicycle 100,000 miles in 26 years, induced me to figure up my own mileage which may prove of interest," writes W. G. Ashley, of Tumwater, Wash. "I commenced to ride a bicycle in March, 1893, and in the eleven years up to 1903, I had covered 54,000 miles on nine different makes of bicycle. In the fall of 1903 I began to get the motorcycle fever and purchased a machine. I kept it just fifty days, when I sold it and purchased an Indian. I have ridden an Indian ever since and up to date have motorcycled 26,000 miles, making a total of 80,000 miles in a little over thirteen years."

Browsers Get Thanksgiving Permit.

The Brower Wheelmen, of New York City, is the first club in the field with a Thanksgiving Day race, and on November 29th will hold its fourth annual 30-mile handicap, starting from Bedford Rest, Brooklyn, at 10 a. m. The course is to Valley Stream and return. The Browsers already have secured the necessary permit, and as the club is offering a comprehensive list of place prizes, there being 45 for place and 7 for time, including four high-grade bicycles, a big field of entries should be attracted. C. Baron, 2 Bank street, New York City, is in charge of the event.

MacLean Wins a Race Abroad.

Hugh MacLean defeated Parent and Cesar Simar, in a 50-kilometre motorpaced matc race at the Velodrome Buffalo, Paris, on Sunday, 30th inst. Simar was in second position, 28 kilometres, when he slipped on the banking and fell, after which he quit. The American rider finished over 100 yards in front of Parent. Time, 43:40.

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SIDE-SLIP AND THE CAUSES

Things and Conditions Responsible for that Nastiest of Spills—Tire Treads and Other Preventives Discussed.

The subject of sideslip crops up every year with monotonous regularity, and opinions, even after the years that the cycle has been with us, are still very varied and conflicting as to how best avoid it. Type of machine, width of tires, and position and action of the rider, all seem to bear strongly on the question; but, in spite of all that has been written and said on the subject, the danger is still present whenever we encounter a road-surface of the kind known as "greasy." However, there is no doubt that it can be minimized by attention to certain general principles, says Sydney J. Tayler in *Cycling*.

In the first place, a road that is wet is not always dangerous. That is, if it is thoroughly wet, with the water running down the slopes and into the gutters; there are exceptions to this, and asphalt is probably as dangerous when thoroughly wet as when partially dry, so also is wood paving, but this stands almost in a class by itself, as the nature of the substance is such as to produce a film of slime on the surface directly the water is down on it. Macadam is generally quite harmless when flooded, unless the camber of the road is very severe and one can almost always avoid riding near the edge of the road.

It is when the mud has solidified that it becomes slippery, and the few minutes after a shower has ceased are anxious ones to the cyclist. Even the London newsboy rides with great caution when this is the case and avoids the risks which at other times he is rather too ready to take. The ordinary rider, whose business and livelihood do not depend on his getting over the ground so fast, does not care to emulate him, even in these comparatively cautious moments, but then his position on the machine is a very low one, and, at the worst, he can always drop his feet to the ground and so maintain his equilibrium.

The point as to whether tires should be hard-pumped or soft is a more or less debatable one, but as the trouble of sideslip was practically unknown in the old solid-tire days, it is only fair to assume that the nearer we can get our tires to the same degree of hardness the safer we shall be. The one exception to this would appear to be when riding over granite setts, when the hard tire rides over the depressions between the stones, and is consequently but little in contact with the roads; a soft tire would sink into the depressions, and probably stand a better chance of getting a fair grip, besides giving the rider a feeling of greater security, due to the absence of bouncing. Generally speaking, however, a soft tire tends to float on the surface of

the mud, whilst a hard one cuts through to the road surface, so that if it is a question of choice, the hard tire would appear preferable. It has been pointed out that the class of men referred to above, all of whose riding is over city streets, often have their tires soft, not to say flabby; this is possibly their misfortune, not their fault, for many of their machines are not above criticism.

Does the width of tire affect the question? Quite likely; it would seem on theory that a narrow tire would be less likely to slip than a wide one; it would be interesting to test a machine over a dubious surface, first with narrow tires pumped hard and afterwards with wide tires rather slack—if a man could be found with sufficient nerve to do it! It is difficult to compare one machine with another in this matter, because the build of the machine and the disposition of the rider's weight go so far towards making it steady or unsteady. The only fair comparison would be to use the same machine for each test, and to vary one factor at a time.

I do not think the pattern of the tread has much to do with slipping or non-slipping qualities, unless the riding is carried to a rather extreme point; when a tire has some of its newness rubbed off, and the tread becomes more or less smooth, it still seems to stand up as well as it ever has done. On the other hand, a really smooth-treaded tire, innocent of any attempt at ribbing, is terribly prone to skid. There is the spinning forward of the wheel to consider, as well as the sideways skidding of it; the former class of slip is not often productive of a fall; it quite commonly occurs when plugging hard up a muddy slope, but it may end in producing a sideways slip which brings the rider over. I cannot say I have ever found it go to such a length, although I have often noticed this futile spinning of the wheel. Transverse ridges on the tread might stop it, but they would tend to assist, rather than to stop, the sideslip; a tread with V-shaped corrugations, strikes the medium, and is said to be remarkably stable on grease.

But little attempt has been made to produce a non-skidding device for cycle tires; practically the only one with any approach to practicability, is the familiar device of chains running across and across the tread. This is a popular form of anti-skid for motor tires, unpromising though the idea sounds, but it has never "caught on" with cyclists, although, as a matter of fact, the same may be said of other non-skids. Any device of this kind tends to destroy the liveliness of the tire, and the average cyclist of modern days is willing to put up with much in order to preserve this attribute.

The uncertainty of sideslip is well illustrated by an incident which occurred at the sideslip trials, promoted by the C. T. C. a year or so ago, when a competitor, who had safely crossed the greasy patch and performed sundry short turns and other evolutions with success, came near

a melancholy cropper on the dry asphalt beyond! In fact, it is this uncertainty, and the suddenness with which the slip invariably occurs that makes it so difficult to say precisely where the cause lies, instilling a whole-hearted distrust of wet surfaces.

There is no doubt that the build of the cycle, and particularly the rake of the front fork, has a great influence on the steadiness or otherwise of the machine; the short wheelbase mounts, with straight forks, nearly vertical in the steering-head, which were so popular for a short time last season, were not at all suitable for greasy roads. It is significant that the great majority of road riders who adopted this pattern have long since reverted to the curved fork. Those machines on which the rider sits almost directly over the rear wheel must also be very apt to slide. It is generally admitted that the weight should be as nearly divided as possible between the two wheels to secure the greatest steadiness of running. A preventative method, sometimes recommended, is to a rise on the pedals when crossing a greasy stretch of road, but this naturally prevents pedalling, and it is only practicable with a free-wheel. Should it be necessary suddenly to resume pedalling, the transferring of the weight of the saddle would probably cause a skid of the worst sort. It is best to stay in the saddle, and to avoid any sudden movements.

Size of wheels may have something to do with steadiness; I fancy that 26-inch wheels are steadier than 28-inch; quite likely, however, the difference with my machines may be in the build of the 28-inch and the 26-inch ones respectively; certainly the latter is the better mount on a greasy road. The centre of gravity is, of course, appreciably lower, and this is probably conducive to steadiness.

Smooth pedal action is at all times to be recommended; sudden stopping and resumption of pedalling are destructive to stability, and if there is any traffic about, with the consequent necessity for sudden pull-ups, the speed should be kept strictly within bounds; apart from this, however, speed has little effect on the stability of the machine, and I agree with the man who recently expressed the opinion that it is as safe to ride fast as to ride slowly over grease. No doubt the results of a fall at fast speed would be more unpleasant, but the chief reason for caution is the possibility mentioned, of being obliged suddenly to stop.

Whether the front wheel is checked by a brake or whether the rear wheel by back-pedalling, instability is instantly set up, although the latter method is the better one. If the front wheel is checked suddenly, the tendency is for the rear wheel to swing round broadside on, if the front wheel has any weight on it at all; or for the front wheel to slide if most of the weight is on the rear one. Any sudden turns should be avoided; and as to corners,

it is safe, and possibly in the end more dignified, to walk round them, wheeling the machine.

Wheels out of track make for instability. There are any number of cycles now on the roads the wheels of which do not track; probably the cause is the price-cutting craze which has seized upon the cycle world. You may count, any day, half-a-dozen cycles with the rear wheel lolloping over to one side or the other. This fault is caused by weakness of the chain-stays, but the tendency is not always for the wheel to pull over the same way; although generally it slants from right to left.

Manholes and street car tracks are abominations which are responsible for many falls, the former because the shoulders get rubbed off them by traffic, forming a slope down which the tire tends to slide if it encounters it in a parallel direction; it is, therefore, advisable not to try to dodge such an object, by riding round it, when it suddenly presents itself in your path, but to cross it as near the centre as possible; car tracks have been anathema to the cyclist from time immemorial, but they present little danger if crossed at a wide angle, and if the tires of the machine are not unduly narrow. In crossing at an angle, however, and then turning so as to resume one's course, there is often great risk of slipping, especially if the space between the rails is at all slippery.

Ruts are provocative of falls, particularly when fairly hard and firm; if the wheels get into one that is wide, it is best to go straight through it, rather than to try to turn the wheel out to one side or the other; the chances are that you will get through safely with a dash; hesitation may mean a fall.

To sum up, then, the conclusions we come to are as follows:

Don't ride too near the gutter.

Narrow tires grip the road better than wide ones.

You can never tell when you are going to sideslip.

Wheels that do not track are a fruitful cause of sideslip.

Straight forks and short wheelbases make unsteady running.

The weight should be evenly distributed between the two wheels.

Speed does not affect steadiness; it is the sudden checking of speed which causes skidding.

Pump your tires hard for asphalt or macadam; but for granite setts let them be slightly softer.

Ridges on the tire are only a partial preventative of slipping, but if sideslip is to be avoided, they should preferably be longitudinal.

Car tracks and manhole-covers should be crossed at a wide angle; do not run parallel to the edge of the former, nor to the groove of the latter.

And finally, ride steadily, pedal evenly, let the weight of your body rest upon the

saddle, hold the handlebars lightly and try to avoid anxiety or nervousness on greasy roads.

Belts as "Power Producers."

How to ride farther and faster without additional labor, is one of the things that, like perpetual motion in its various guises, is being continually sought after. The inventors run pretty much in the same groove too, as witness this belt, which has been just patented abroad.

As shown in the accompanying illustration, the belt, g, is fastened about the waist



of the rider and is hooked to a metal bar 4, the latter being pivoted by means of a clip, b, to the top tube near the head, or at the point, a. By a special arrangement, a spring forces the bar to fall back onto the clip when the rider leans forward, thus making the clasping or freeing entirely automatic.

The theory is, of course, that when riding the additional advantage gained by the forward tension of the belt, goes to steady the rider and permit him to apply added power to the pedals. The inventor, like many of the newer cyclists, is evidently unaware that quite a crop of such belts went to weed about 10 years ago. Most of those early efforts, however, strapped the rider to the saddle.

Good Going on Aurora Track.

Three motorcycle races drew a large crowd to the driving park track at Aurora, Ill., on Sunday afternoon last, 7th inst., the occasion being the initial motorcycle meet held in that city. The most exciting event was the ten mile handicap with five starters—Harry Kramer, W. J. Olinger and Charles Hinckley, of Aurora; Johnson, of Chicago, and Lathin, of Elgin. Kramer had trouble with his feed pipe and was compelled to drop out in the sixth mile, and up to this time the race had been a close fight between Kramer and Hinckley from the 45-second mark. The former passed Hinckley in the third mile but lost on the next lap. From the time Hinckley passed he had an easy romp under the wire for first prize.

The curtain-raiser was a three-mile open which went to Harry Kramer, who rode a

Thor, Hinckley, astride the same make of machine, running a close second. Third place was taken by the visiting Chicagoian, Hedin running fourth and Johnson last. Lathin, from five seconds, got the five-mile handicap by a narrow margin from Hedin, the 20-second man. Hinckley finished for third, and Kramer on a Thor, from scratch, got fourth. The summaries:

Ten mile handicap—Won by Charles Hinckley (Thor), 45 seconds; second, W. J. Olinger, 45 seconds; third, J. Lathin (Marsh), scratch; fourth, A. Johnson (Yale), 2 minutes. Time, 18:37½.

Three mile open—Won by Harry Kramer (Thor); second, Charles Hinckley (Thor); third, J. Lathin (Marsh); fifth, S. Hedin (Thor); sixth, A. Johnson (Yale). Time, 4:08¾.

Five mile handicap—Won by J. Lathin (Marsh), five seconds; second, J. Hedin (Thor), 20 seconds; third, Charles Hinckley (Thor), 5 seconds; fourth, Harry Kramer (Thor), scratch; fifth, J. Johnson (Yale), 45 seconds. Time, 9:12½.

Providence Meet Promises Big Things.

In Providence, R. I., they are saying that it will not be surprising if at the Providence Motorcycle Club's racemeet on Oct. 21, a "standing room only" sign becomes necessary. The meet is being well boomed, posters being displayed everywhere—even in the streetcars. The F. A. M. has formally awarded the ten miles national championship to the club and it is expected that G. H. Curtiss, of Hammondsport, N. Y., will be on hand to battle for the title with Kellogg and De Rosier, of Springfield. The Newport Motorcycle Club has been selected to oppose the Providence Motorcycle Club in the unlimited pursuit race; each will be represented by a team of four men.

Hedspeth Makes a "Killing."

"Woody" Hedspeth, the Germanized American negro who, it is stated, wants to ride in this year's six-day race, seems to have been doing things on the other side recently. At the Forstenrieder track, Berlin, on October 1st, Hedspeth captured the sprint race, the handicap and the 20 kilometre paced race, all the professional events on the program. At the Velodrome Buffalo, Paris, on the 4th, he met Antonie Dussot in a 20 kilometre paced race and after leading for the greater part of the distance had trouble with his pacing machine and was ultimately defeated by three laps. The time was 17:03 which is about as fast as the negro has ever ridden.

Schwab Picks up a Second.

Oscar Schwab finished second in a 600-kilometre lap race at the Buffalo Velodrome, Paris, on Monday, 1st inst., besides getting three lap prizes. The race was won by Danjou in 9:24. At the meet Schreyer, the American who shoots down an incline on a bicycles, frees himself from the wheel and dives into a small tank containing five feet of water, gave his first Paris performance.

WHEN THE MOTOR BEGIN TO JERK

The Many Things that may be Responsible
for the Jerking and Some of the
Available Remedies.

It is not every case in which the motor runs jerkily—by fits and starts—that the trouble is traceable to the ignition. This is the general rule, of course, but unfortunately it is like every other, it has its exceptions. When missing and jerky running makes further progress out of the question and it has been ascertained without question that a dirty plug, faulty connections, a loose switch-blade or some kindred ill it not at the root of the trouble, the time is ripe to delve into that other essential, the carburetter. The motorcyclist whose experience has been ripened in the course of three or four season's riding knows that when there is a charge of gas and a spark to ignite it at the proper moment, there must be some sign of action, even though it be misplaced, when the engine is turned over. If the spark happens when and where it should, there is a list of carburetter ailments just as there is of ignition ills and going over these systematically will seldom fail to bring something to light if it be only the fact that another and totally unsuspected cause is at the root of the trouble.

Naturally an unrestricted flow of gasoline to the carburetter comes first and foremost in this list and the tank and its connections should come in for inspection. Empty tanks and dead batteries are the classic trouble of the motorcyclist that will go down in history as standing jokes, but they are as much a fact to-day as ever they were, so see that the tank has something in it before blaming the carburetter or condemning the machine generally. Then see that the air vent in the stopper is unrestricted. If there happens to be plenty of gasoline and nothing to impede its flow to the carburetter, it is time to try the opposite tack and find out whether the trouble is not due to the fact that there is too much gasoline, for frequently too much is as bad as too little, it often being impossible to start the motor with an excessively rich mixture.

Most carburetters of modern types are fitted with a priming pin and the trouble may sometimes be diagnosed by using it. It is not necessary to pound on the head of the pin to get the desired result—pressing it down gently and holding it down for a moment or two will produce the same effect. This is a bad habit that many motorcyclists get into and it is doubtless responsible for more or less minor derangement of the carburetter. If the gasoline does not flow at all, even after the application of this incentive, hold the pin down on its seat and resort to the old trick of blowing vigorously into the tank opening. An air

lock may have formed in some part of the piping that even the pressure of a full tank of fuel will not dislodge and the blowing trick will invariably remove it. This trouble will not occur if the tank is never permitted to become entirely empty, thus permitting air to fill the supply pipe.

If priming the carburetter results in starting the motor without further trouble and it will then continue to run but a short time, the cause may be put down to an obstructed flow of gasoline and this may be temporarily overcome by holding down the priming pin or, if that is too much, by pressing it down occasionally so as to fill the float chamber, although blowing in the tank often will remove an obstruction.

If it becomes necessary to dismount the carburetter in order to get at the trouble, bear these points in mind: Where a cork float is used, it may have been jarred up or down on its spindle and stuck fast in a new position. The result in one case will be flooding of the carburetter and in the other a lowering of the fuel level to an extent where the spray jet no longer has anything to work with, which is equivalent to shutting off the feed at almost any point in the system, except that turning the motor over very quickly for a minute or so may draw in enough for a charge or two and this only tends to make matters more puzzling.

If there happens to be a filtering gauze at the fuel inlet of the carburetter, see that it has not become clogged with dirt or lint; take out the drain plug of the carburetter which will be found directly under the float in the majority of instances and see if an accumulation is responsible. This should also prove an aid in getting rid of water if the gasoline happens to be afflicted in this way. Take out the needle, see if its point is still a perfect cone and note whether its shank is bent or not, as either of these may allow an excess of fuel to pass for a given number of turns thus rendering the mixture too rich. A popping noise in the carburetter is a more or less rare ailment which strange as it may seem is not a carburetter ill at all. It is usually due to a weak inlet valve spring which causes the valve to be sluggish in closing so that part of the compressed charge is shot back into the carburetter, though running regularly, giving rise to a peculiar hollow sound.

Although it is generally termed popping in the carburetter the location of the noise as well as its cause is the valve. When its spring is weak it does not close at the proper moment which should be the instant the piston ceases descending and begins to rise on the compression stroke. Where the valve action is very sluggish some of the partially compressed fresh charge is permitted to escape and its sudden cutting off by the valve coming down on its seat is responsible for the noise. Generally speaking, the average motorcyclist does not give the valves of his ma-

chine sufficient attention—they are usually the last thing he thinks of looking at. This is particularly true of the inlet valve, although there are troubles of which the exhaust valve may be the source as well. As the automatic inlet valve is not a positive acting device, it naturally depends upon favorable conditions for proper action whereas the mechanically operated valve of which the exhaust is a type, will continue to open and close the same distance at every stroke as long as the cam and lifter continues to act.

Bearing this in mind it is easy for the experienced rider to appreciate the importance of inspecting the inlet valve from time to time. Running on a rich mixture and with an excess of lubricating oil will form a carbon compound that will deposit on the piston head and valve seats and it will give trouble wherever it settles. It may form in cones on the piston head and these becoming incandescent when the engine gets hot cause preignition and back firing, while its caking on the valve seats will prevent them from closing altogether and result in a loss of power, sluggish starting and similar troubles for which a small charge and consequent lack of compression are directly responsible. Similarly, the exhaust valve weakens in use and is the cause of much loss of power, which frequently may be corrected merely by stretching that spring. Any overhauling of the machine should include an inspection of the valves and cleaning will probably be found necessary at least once in every thousand miles of running if not oftener.

What May Cause the Noises.

As a rational beginning, when attempting to locate a mysterious "click" which refuses to be discovered, a very good plan is to dismount and see whether the click stops when the machine does, or whether it continues uninterrupted. Sometimes it may come from a well drill over in the next lot. If it really is connected with the running of the machine in some way, and does not arise from the jangling of change in the rider's pocket, or from the creaking of a garter hook, perhaps it may come from a bit of twig which has adhered to one of the tires and is striking against the frame or one of the forks. Then again, the world has not even yet advanced so far that cyclo-meters do not occasionally get out of position sufficiently so that the striker lands about in the middle of the star wheel each turn, or that a stiff link in the chain will not snap most viciously every time it crosses the smaller sprocket. So look to the little things. The most portentous sounds usually emanate from the most insignificant sources.

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IMPORTANCE OF LUBRICATION

Why Motorcycle Makers' Advice is Worth Following—Unusual Accident that Served to Emphasize the Fact.

"Few motorcyclists realize the importance of following instructions to the letter where the matter of lubricating their machines is concerned," remarked an old-timer. "The trouble is," he went on, "that most of the things in the shape of machinery that are sold broadcast to be used by people with no particular skill and often with no particular brains, for that matter, is that they will work more or less whether the instructions are closely followed or not, so that the great and good public has been sort of brought up to believe that it can disregard instructions with impunity.

"It can't where the motor bicycle is concerned. Take my word for it, young fellow," addressing himself to the juvenile member of the party, "and when your instruction book says so much oil every 25 miles, don't use three times that quantity in the same distance and what is a whole lot worse don't forget all about it and run twice as far on the same amount. As bad an accident in the way of a smash-up as I ever saw, or as bad as I ever want to see, happened on account of lack of lubricating oil. Not so much because instructions were not followed where the dose to be given was concerned as general carelessness. So many of you fellows seem to forget altogether that what is carrying you about at a good pace is a piece of machinery and that it won't continue to run just because you tell it to.

"If steamers and railroad locomotives and stationary engines worth thousands of dollars break down occasionally in spite of the best skill that money can buy to keep them going, how do you expect to escape scot free every time? You simply can't do it. I didn't mean to start a curtain lecture when I began this but I think if the fellow I have in mind had a little reminder, he might be a motorcyclist still with a good machine instead of being soured on the sport for good. Nothing more or less than a matter of pure carelessness.

"He was one of the fellows that had to have everything of the very best and he didn't take to the motorcycle when it first came along. There was some excuse for that, to be sure, for they weren't things of beauty by any means and there was never any telling whether you would arrive at your destination when you started out, or whether you would get back, if you did succeed in reaching the other end. But when the twin cylinder machine put in appearance he succumbed and invested in one with all the extras. He had an outfit to make the average rider envious. I've stuck to the game through thick and thin and from the very beginning, but I never invested in all the extras and contraptions

that that fellow had on all the machines I have had put together. He was like one of those fellows who 'goes in for golf, you know' and going in for anything with those fellows means investing in about a century and a half's worth of duds with a whole carpenter's chest full of sticks.

"Well, he had everything there was going, to be sure, but whether it ever made him happier or not I don't know. One thing certain, he never left any of them behind when he went out for a ride. And although he rode a good deal he never seemed to pay much attention to his machine and what was more to the point, he seldom seemed to have any trouble. He may have had 'his



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man' to look after the machine, of course, but I'm not sure but what he was so stuck on it at first that he did all the work himself.

"I happened to be out with him on the particular occasion that he came to grief so that I was an eye-witness and can give you the story at first hand. It was an all-day jaunt and I suppose we had gone thirty or forty miles in the forenoon and both machines started off without the slightest trouble after dinner. We had given them a wipe off, filled the oil cups and all that, so we thought we were fixed for a good part of the afternoon. But we hadn't gone very far when he began to have trouble. That machine certainly acted strangely and it was beyond me to figure out just what was wrong with it. But as one of the cylinders continued to fire just as regularly as ever we kept on going, trying to puzzle out meanwhile just what could be the matter. It looked alright except that the after cylinder seemed to be getting pretty hot and every now and again the whole engine would give off some uncommonly ominous sounds.

"We must have gone a mile or more with

things getting worse and neither of us had sense enough to suggest getting off and giving the engine a chance to cool off so that we could investigate. Well, it's only another one of those 'ifs,' for if we had done so there wouldn't have been any story to tell and in all probability my friend would still be enjoying his motorcycle as well as some other things that he lost, at the same time. We came to the top of a long hill and I suggested it would be a good idea to cut out the motor altogether and run down the hill so as to let it cool a bit. He thought so, too, but he also thought that a start of a hundred yards or so would help matters so he speeded up and then opened the switch, but the motor kept right on firing. Lickety, split, bang, bang, he went down that hill, first one cylinder, then the other—sometimes both and occasionally neither would fire. He flew along at a great pace and I had to speed up considerably in the attempt to catch him. I was still twenty or thirty feet behind him and near the bottom of the hill with both machines going a good thirty-five or better when something went off with a roar and both he and his machine disappeared.

"That is, they stopped and I kept right along, as at the speed I was going I couldn't pull up in much less than a block and a half. Things were certainly in a sorry mess. My friend seemed to be pretty well shaken up so I had him attended to as soon as possible. Then I hired an express wagon to cart the remains home, and I had piled both the machines in and had climbed in after them, as I hadn't the heart to ride after that, when a small boy came running up and asked me if I didn't want the piece of the machine he had in his hand. It was one of the cylinders, and the piston was still jammed fast in it while the connecting rod had broken off at the strap. I was so puzzled in trying to figure out what had happened that I forgot all about being despondent and set to work to see what I could make out of it. But rack my brain as I would I couldn't get an inspiration. What on earth had ever made that cylinder fly off the crankcase like a projectile was utterly beyond me for some time.

"Then I tried to withdraw the piston and found that it was bound fast. That together with the fact that the motor had not responded to the switch just before the accident provided a good working clue and I followed it up on the machine itself. You never saw such a wreck. The cylinder had broken off in a jagged line just below the cooling flanges so that half of its base remained fixed to the crank case. The other half evidently proved much stronger for it did not give way. But something had to give and it ripped a piece the size of your hand out of the side of the crankcase and that must have broken again when the flying mass struck it, for it was nowhere in sight. Both the inlet and the exhaust pipes had been ripped off bodily shearing off the heads of the screws that held them to the

cylinder. How far they were hurled I never found out for it was only by the merest piece of luck that a small boy found the cylinder, or what remained of it. But the tremendous force that had shattered the engine to pieces had left the lubricator leads practically intact—an inch or so of the twin leads to the cylinders had gone with the flying parts, of course, but otherwise they were whole and the branch copper tubing hung limp where the rear cylinder had been.

"Of course, it only took a fraction of the time to take this all in that it requires to tell it and the moment my eye lit on the lubricator leads I fathomed the cause of the trouble. Oil was still oozing out of one of them and dripping on the floor of the wagon and it must have dripped steadily for quite a little while for there was a pool of it there. But in spite of that there was still left some in the tank so that lack of a supply of oil was not accountable. But lack of oil at the proper place was for the lead to the rear cylinder was stuffed so tightly that nothing could get through it. I fished out a piece of fine steel wire that I carry for just that purpose and investigated. The result was some threads of cotton waste and some miscellaneous dirt—a wad of stuff big enough to have stopped up the whole system, but by some queer freak it had all lodged in the rear tube. Evidently my friend had not been as careful with his oil supply as he might have been for the waste could not have got there except through carelessness.

"After that there was no longer any mystery in what had happened. The rear cylinder had not been getting any oil at all for some time back—how long it would be hard to say. Probably if it had been a single cylinder machine it would not have continued to run for anything like the length of time it did for the forward cylinder was in good shape and kept moving the piston in the other one long after it would have stopped ordinarily. And that, too, was the chief moving cause of the disastrous wreckage that resulted, for if both cylinders had failed the machine would have come to a stop without any accident. But as it was the forward cylinder continued to run

in good shape as if nothing had happened while the rear one kept getting hotter and hotter and hotter all the time until finally the rear piston stuck fast on its up stroke through expansion caused by lack of oil and then something had to give. Under any other circumstances such as running at ordinary speed on the level or climbing a hill this would have 'killed' the engine and there would have been no serious damage caused apart from the scraping the cylinder may have received from the dry piston, but as it was with the engine running at top speed with the forward cylinder exploding, and accelerated by the high speed at which the machine was rushing down hill, its whole force was concentrated on one point, so it is little wonder that the rear cylinder went flying off as if it had been shot out of a gun. It only serves to illustrate that many a man thinks his machine is in first-class running condition is taking appearances at their face value which is not always a safe thing to do by any means. And there is nothing on the motor bicycle to which this applies with so much force as the oiling.

This Bishop Believes in Bicycles.

The Bishop of Woolwich, England, believes firmly that if a man must travel on Sunday he should manage his own traveling, relates an exchange. For his part he patronizes the tricycle, and was enabled by it to address two congregations, one of them in the open air, one Sunday night. While admitting the necessity (or, at any rate, a certain amount of excuse) for some Sunday traveling, the Bishop of Woolwich is inclined to regret its increase. "So much of it is absolutely necessary," he said, "one hears of little else on Sunday but journeys somewhere. People seem actually to save their traveling for that day." But if you must travel, says the Bishop, then far better by your own labor than by that of any one else.

"The A B C of Electricity" will aid you in understanding many things about motors that may now seem hard of understanding. Price, 50 cents. The Bicycling World Co., 154 Nassau Street, New York City. ***

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are already well aware of the unrivalled comfort and quality of the world-famed

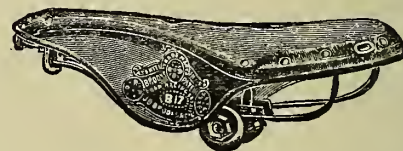
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MANUFACTURERS OF HIGH GRADE MATERIAL ONLY

SEAT POSTS

Fork Sides

Rear Forks

Rear Stays

THE STANDARD WELDING CO., CLEVELAND

The Week's Patents.

828,334. Carburetter. Albert Peterson, Cambridge, Ill. Filed Apr. 11, 1905. Serial No. 254,949.

Claim.—In a carburetter, the combination of superposed reservoir or generating tanks, a plate located within the generating-tank and spaced a short-distance from the bottom thereof, hollow supports for said plate resting upon the bottom of the generating tank and having a radial arrangement, a pipe passing centrally through the reservoir and generating tank and connecting with the center of said plate, a second pipe concentric with the first-mentioned pipe and communicating with the upper portion of the generating-tank and passing through the reservoir-tank, a feed-pipe extended through the reservoir-tank and passing into the generating-tank and having a nozzle at its lower end and a valve-casing above said nozzle and provided with a feed-opening above the bottom of the reservoir-tank, a valve located in the casing of the feed-pipe, a float-controlled lever having an upwardly-extended portion entering the nozzle of the feed-pipe coming in contact with the valve controlling the same, said lever having an engaging portion at its float end, and a pipe extending through the reservoir-tank and about in line with the engaging element of the float-controlled lever, the upper ends of the pipe and the said float-feed pipe being adapted to be closed.

828,335. Dry-Battery Cell. Angelica E. Post, Boston, Mass. Filed May 17, 1905. Serial No. 260,763.

Claim.—1. As an article of manufacture, a cell containing a central electrode, having all the active ingredients including a dry excitant mixed together and packed around and in contact with said central electrode, said ingredients being maintained in an absolutely dry condition as long as the cell is not being used, said cell containing dry absorbent means surrounding said ingredients in direct superficial contact therewith for absorbing from the latter extraneous moisture and maintaining said ingredients in their said normally dry condition.

828,402. Device for Securing Cross-Pins in Pistons. Harry M. Hart, Philadelphia, Pa., assignor of one-half to James G. Heaslet, Philadelphia, Pa. Filed Nov. 14, 1903. Serial No. 181,161.

Claim.—1. A hollow piston having bearings for a cross-pin and an annular seal, formed in a bearing, in combination with a pin supported in the bearings and an elastic split ring, sprung into the slot, to form an abutment for the pin.

828,841. Locking-Band for Pneumatic-Tire Covers. James Cotterell, London, England, assignor to Alfred Henry Smith, London, England. Filed Dec. 30, 1902. Serial No. 137,161.

Claim.—1. A discontinuous locking-band for securing the cover of a pneumatic tire to the rim of a wheel in which the butting ends of the bands are stepped and the surfaces thereof cut obliquely both to the central plane of the wheel and to a radial plane passing through the axis of the wheel, and to one end of which a sole-plate is secured.

828,940. Carburetter. Wilbur D. Lanard, Clementon, N. J. Filed Aug. 27, 1904. Serial No. 222,429.

Claim.—1. A chamber having a cap upon which are formed apertured projections, an apertured projection upon the side of the

chamber, a flanged nozzle provided with a conical projection and a cylindrical extension surrounding said conical projection and provided with a plurality of apertures near the base of said extension, said nozzle being insertible within the bottom of said chamber.

829,345. Carburetter. Albert W. Menns, Malden, Mass. Filed June 7, 1905. Serial No. 246,079.

Claim.—1. In a carburetter, the combination of a mixing-chamber, a hydrocarbon-reservoir, a hydrocarbon-inlet nozzle therefor communicating with said mixing-chamber, a valve in said inlet-passage, a piston secured to said valve, a cylinder therefor, and means for admitting and emitting liquid to and from said cylinder beneath said piston.

829,545. Sparking Plug. Charles E. Ross, Crafton, Pa. Filed July 9, 1904. Serial No. 215,869.

Claim.—In an electric sparking mechanism, a hollow conducting-casing having an annular groove in the periphery thereof, a core of non-conducting material engaging said casing, an electrode-rod passing through said core and a detachable cover of stamped spring metal adapted to protect the exposed end of said core and having integral legs adapted to be sprung into and engage said groove, said cover forming one of the electrodes of said mechanism, substantially as and for the purpose set forth.

829,683. Handle-Bar for Bicycles. Bohumil Tulka, Prague, Austria-Hungary. Filed June 21, 1905. Serial No. 266,248.

Claim.—In a bicycle handle-bar, the combination of the head, two cylindrical members arranged telescopically and having co-incident transverse openings receiving a portion of the head, one of said members having a reduced threaded extension, formed with a riveted head at its free end and a nut arranged on said threaded extension and adapted to abut against the other member, substantially as described.

830,005. Vulcanizer. Louis E. Rice, Cedar Falls, Iowa. Filed March 8, 1906. Serial No. 304,985.

Claim.—1. In a vulcanizer the combination with a hollow body open at its ends and having an opening in one wall, the lower end opening being adapted to receive a heater; of an iron detachably mounted in the opening in the wall, and means hinged to the upper end of the body for closing the upper opening to confine heat within the body.

830,229. Driving and Brake Mechanism in Bicycle-Hubs. Ludwig A. Herman, Hamburg, Germany. Filed Oct. 18, 1904. Serial No. 297,346.

830,556. Cooling Attachment for Explosive-Engines. Horace G. Alexander, Londonderry, Vt. Filed Jan 22, 1906. Serial No. 297,346.

Claim.—1. A cooling attachment for explosive-engines, comprising a hollow head arranged to be placed contiguous to the cylinder head of an explosive-motor, and spaced pipes carried by the head and arranged to surround such cylinder, said pipes being separate from the cylinder and having perforations through their inner sides.

830,641. Yieldable Gear-Wheel. James A. Brown, Chicago, Ill. Filed Nov. 23, 1905. Serial No. 288,732.

Claim.—1. A yieldable gear-wheel having a central disk adapted for attachment to a shaft and having an enlarged rim at the outer edge, and two outer annular disks

clamped together and having grooves at their inner edges in which said rim fits.

830,660. Exhaust-Muffler. Otto Goldman, San Francisco, Cal. Filed June 8, 1905. Serial No. 264,267.

Claim.—1. In an exhaust-muffler the combination of a casing having at one end thereof a neck having a plurality of apertures, an intermediate tapered case surrounding said tube, out of contact with said tube and casing longitudinally and having end openings, a neck constituting an outlet at the opposite end of said case, substantially as described.

831,547. Carburetter for Explosive-Engines. John B. Dunlop and John B. Dunlop, Jr., Dublin, Ireland. Filed June 22, 1903. Serial No. 162,623.

Claim.—1. In a spray-carburetter, the combination with a float-chamber and a mixing-chamber, of a fuel-pipe between the chambers and having a nozzle at the end opening into the mixing-chamber, and a baffle in the fuel-pipe for automatically regulating without adjustment the flow of fuel into the mixing-chamber relatively to the quantity of air drawn into that chamber and maintaining the mixture in constant proportions independently of the speed of the engine and for all degrees of opening of the throttle.

832,189. Magnetic Ignition Device for Explosion Engines. Heinrich W. Hellman, Berlin, Germany. Filed Nov. 14, 1902. Serial No. 131,373.

Claim.—1. In an electric igniter for explosive-engines, the combination of fixed and movable electrodes, an electro-magnet arranged in circuit with said electrodes, an armature for engaging said movable electrodes, means for varying the time of actuation of said armature, means for adjusting the length of the spark-gap, and independent means for regulating the force with which said armature engages the movable electrode, substantially as described.

832,442. Variable-Speed Gear. James Archer, Manchester, England. Filed July 15, 1904. Serial No. 216,760.

Claim.—1. In a variable-speed gear for velocipedes and road-vehicles, a fixed axle with longitudinal boring and transverse slots, also with a pinion on its exterior and a screw-thread at each end, a cone-bearing fixed on said axle near one end, and a further cone-bearing loosely screwed onto the other end of the axle, a driving member fitting over said axle from the left-hand end and against the said fixed cone-bearing, a wheel-hub, a bush in each end of the hub and one of them designed to surround the said driving member and the other designed to lie around the loose cone-bearing, and thus axially support the hub, the driving member, the hub, its bushes and the loose cone-nut all being adjusted against the fixed cone-bearing in combination with a planet-cage, planet-gear wheels and a gear-ring, movable longitudinally within the wheel-hub, and means whereby the planet-cage and gear-ring only on being moved to various positions, serve individually or collectively to transmit the motion of the driving member to the hub at three different speeds, and allow of free wheeling with each speed and the planet cage and gear to remain stationary while free wheeling, substantially as set forth.

"The A B C of Electricity" will aid you in understanding many things about motors that may now seem hard of understanding. Price, 50 cents. The Bicycling World Co., 154 Nassau Street, New York City. ***

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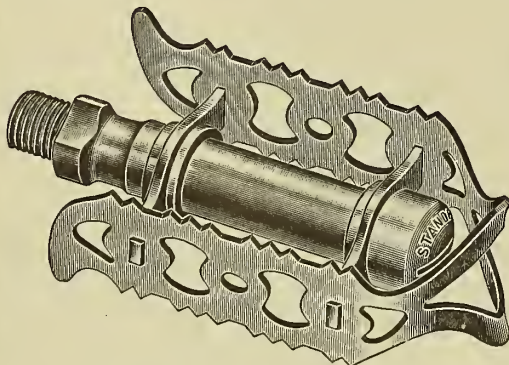
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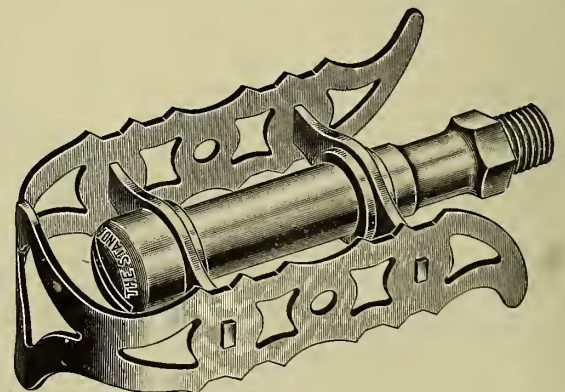
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THE BICYCLING WORLD and MOTORCYCLE REVIEW

FOUNDED
-1877-

Volume LIV.

New York, U. S. A., Saturday, October 20, 1906.

No. 4

HENDEE PARTS FROM AURORA

All Indian Motorcycles to be Hereafter
Made in Springfield Factory—The
Cause and the Effect.

For the year 1907 and thereafter, the Indian motor bicycle will be made wholly in the Hendee Mfg. Co.'s own factory in Springfield, Mass. This is to say that the Hendee people will no longer purchase or make use of the motors and parts manufactured by the Aurora Automatic Machinery Co.

The decision, which was reached at a recent meeting of the Hendee stockholders, undoubtedly will prove in the nature of a sensation, as nothing of the sort was anticipated, although now that action has been taken, the full meaning of the new factory and of the vast quantity of machinery that has been piling into it during the recent months is made plain.

In explaining their decision, George M. Hendee, president of the company, said that primarily it was caused by the inability of the Aurora Automatic Machinery Co. to supply even a small quota of the motors and parts which the increased and increasing demand for Indians made necessary. The stringencies of the past had determined the Hendee principals to produce a machine entirely of their own manufacture in addition to one made-up of Aurora or Thor parts but their model had been so well advanced and had proven so abundantly satisfactory and their efforts to obtain material had been rewarded with such success and so much more of it had been obtained than had been originally counted on, that when the stockholders got together and sized up the situation, the resolve to cut loose entirely from the Aurora source was quickly reached.

Of the new Indian Mr. Hendee would talk only in the most general terms. He said that it would retain all the most desirable features of existing Indians but that

at every point the 1907 model will demonstrate that the refining hand and head of Oscar Hedstrom has advanced with the times.

"You have my word for it—it will prove a glad surprise," was Hendee exact language when the pressure for information became acute. More he could not be induced to say, although he did give assurances that deliveries would commence in January.

As is fairly well known, the motor, carburetter and most of the other motorcycle components produced by the Aurora Automatic Machinery Co. are made under patents issued to Hedstrom, who, whilst retaining an interest in them under the license granted to the Aurora concern, had assigned the patents to George M. Hendee personally. The non-renewal of the contract between Aurora and Hendee will not in any way affect this license, which, Mr. Hendee stated, had been issued by himself personally and wholly apart from the Hendee Mfg. Co.—a fact not generally known.

Now Sales Manager for "3 in One."

Charles E. Hunt, who for several years has been circulating among the jobbers of the country in the interests of "3 in One" has been appointed sales manager of the G. W. Cole Company, the manufacturers of that famous lubricant. Hunt's appointment as sales manager is a deserved recognition of his abilities and energies. He has done good work from Canada to Mexico, which is equivalent to saying that he "knows his book."

Death of Ben L. Darrow.

Benjamin F. Darrow, one of the pioneers in the bicycle business in the West, died at his home in Indianapolis, Ind., on Oct. 3rd. His death was caused by a complication of diseases. At the time of his demise Mr. Darrow was secretary and general manager of the Wheelmen's Company of that city. He was 36 years old.

MOTORCYCLE MAGNETOS COMING

Splitdorf Begins the Manufacture of First
American Instrument—Will be Driven
by Gears, not Chain.

Although magnetos have been for years in fairly general use on continental motorcycles, they have made no progress and found practically no favor on this side of the water. This may be due to the fact that no American magneto of suitable proportions has been obtainable and if this be the reason, it will not exist much longer. Charles F. Splitdorf, the well known New York maker of coils and other ignition apparatus, has the work in hand.

M. E. Toepel, of the Splitdorf laboratory, has had the original magneto in use on his motor bicycle for the past six weeks, and its splendid performance has done much to inspire confidence, most of Toepel's riding having been done on club runs. Splitdorf's magneto, unlike the foreign types, is driven by bevel gears instead of a chain and is smaller and in every way more compact. The fact that the use of the magneto renders the commutator and dry battery unnecessary constitute but one of its appealing features. For as a matter of fact the spark it supplies is so much fatter and hotter, that the more perfect combustion which results means more power, less noise and less odor—features which Toepel's use has impressed for the first time on many riders.

Counterfeiting Begins in Japan.

According to advices from Japan, via London, certain "unprincipled Japanese" have commenced to imitate the better known foreign bicycles and are palming them off as genuine, the imitations being so "very cleverly done that it would take an expert to tell the difference between the false and the true." The man who sounds the warning considers the situation serious enough to advise that "strong representations be made to the proper authorities."

MOST MODERN OF TIRE PLANTS

Great White Pile that has been Reared in
Detroit—Features of its Construction
and Equipment.

Morgan & Wright are now of Detroit. Lock, stock and barrel have been removed from labor-troubled Chicago and while a fine red brick structure was left behind, there are no regrets. The plant in the Michigan metropolis is brand new and is much larger and better equipped and much finer in every way than the Chicago structure and, it may be added, more imposing; it is constructed of white sand-lime bricks, of which more than 6,000,000 were used. It requires a wondrous stretch of imagination to recall that this great, solid white pile grew from a little basement room on Lake street, Chicago, where the business was started in 1883.

The decision to remove to Detroit and the nature of the new plant and the process of its construction were and are thoroughly characteristic of Morgan & Wright. The decision was reached after calm deliberation, the structure was reared without flourish of trumpets and like the M. & W. goods, the work was well and truly done. It was late in 1904 that Charles H. Dale, president of the Rubber Goods Mfg. Co., of which Morgan & Wright constitute a unit, settled on removal from Chicago and it was in January of the following year, that an option on the present site was secured. In April this land was purchased, consisting of nine acres and having a river frontage of 420 feet, directly opposite the lower end of Belle Isle and a block to the south of Jefferson avenue. The site has perfect wharf facilities and is tapped by a spur-track of the Detroit Manufacturers' railroad.

Before a single foundation stone could be laid it was necessary that the ground beneath the building should be strengthened by the driving of piles. Six thousand of these were used under foundation walls and the piers which were to support the ponderous machinery. Except that employed in the steel and iron industry, no other machinery is so heavy or subjected to a greater strain than that utilized in the manufacture of rubber products.

The first concrete foundations were started in August, 1905. These included not only those for the walls of the various buildings, but also those for the numerous heavy machines, laid directly upon the piling sub-foundation and in many cases independent of connection with the floor of the building.

This work was pushed so rapidly that upon the 13th of September the first brick was laid in the walls.

In manufacturing capacity the new works will be more than double the size of the old Chicago plant.

The buildings, as has been stated, are

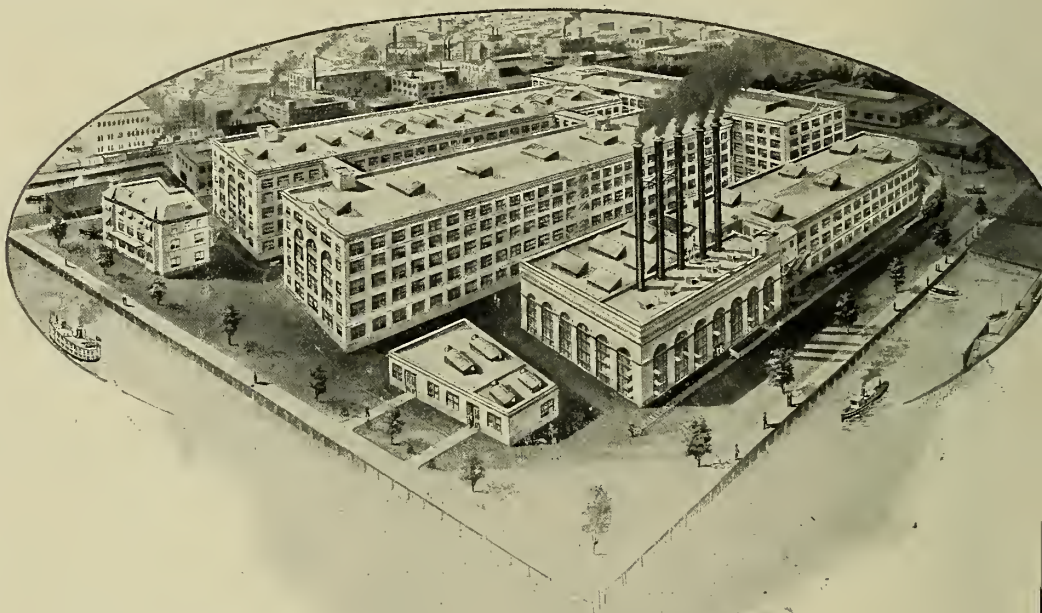
of white sand-lime bricks, with fireproof and slow-burning construction throughout. A more excellent example of factory construction in the highest lines would be difficult to find. For strength to carry the heavy stock and machinery in the factory buildings, and also to provide slow-burning qualities, the floors are made up of 2x6-inch joists laid on edge, in close contact, directly on the steel floor beams. This makes a practically solid wood sub-floor 6 inches in thickness, on which the regular hardwood flooring is laid.

In the boiler room is provided space for twelve 250 horsepower vertical water tube boilers. Ten of these are now in place,

These mills run at low speed and are consumers of great power. It is in the driving of rubber mills that the Dodge Manufacturing Co. has applied its American system of rope transmission with great success.

The main engines deliver their power from 18-foot flywheels by Dodge American system rope drives to 22-foot receiving sheaves mounted at the extremities of a heavy jackshaft, from which distribution of the power throughout the plant is accomplished.

The arrangement of the various buildings composing the plant is such as to accomplish the greatest economy of power distribution and the most convenient handling



giving a present boiler capacity of 2,500 horsepower. The boilers are fitted with mechanical stokers, fed by spouts from coal bins overhead. A complete equipment of machinery for coal handling and ashes removal is provided. Feed water for the boilers is derived directly from the Detroit river to make up the additional requirements to supplement the large amounts of condensation and returns from steam heaters used on rubber presses and in other manufacturing processes.

Power for the entire plant is developed by two 26 and 54x48-inch cross-compound condensing engines, each rated at 1,200 horsepower, at most economical cut-off, with 150 pounds of steam pressure and running 90 revolutions per minute. The distribution system for the power from these two engines is arranged in conformity to the peculiar requirements of rubber working. The primary power consumers in a plant of this character are the ponderous rolls or mills in which the crude gum is broken down and compounded with various ingredients for different classes of product.

of goods in process of manufacture. Six separate buildings compose the group devoted to manufacturing and subsidiary purposes. The seventh is designed for the exclusive use of the officers constituting the business administration.

The two largest buildings run north and south and are located on the southwest portion of the site. They are placed side by side at right angles to the river and are 60x300 feet, five-stories in height. The one to the west is known as the manufactured goods building and the one beside it is the mill building. Extending at a right angle to these buildings across the north ends of both is the warehouse, 60x250 feet and three stories in height. This structure is divided in halves. The half opposite the end of the manufactured goods building is used as a warehouse for the finished product and that opposite the end of the mill building is used as a warehouse for raw material.

"Motorcycles and How to Manage Them." Price, 50 cents. The Bicycling World Co., 154 Nassau Street, New York City.

WHEN GASOLENE IS DANGEROUS

Facts Regarding the Vapor and When Empty Tanks Become Explosive—Some Experiments that Apply.

Anything in which electricity plays a part is by common consent conceded by the average individual to belong to the realm of mysteries that are beyond his ken.

"Oh well, it works by electricity," is an answer that is considered to put a quietus on any further questioning of the kind and not infrequently both participants in an argument are willing to view matters in that light.

There is small reason why gasoline vapor should be considered as belonging to the same realm of mysteries but that it is thus held in awe by many motorcyclists otherwise well versed cannot be doubted in view of some of the experiences with it that have come to light recently. But when the recitals of such happenings or experiments as the case may be, have carefully been dissected in detail it is not difficult to discern wherein the experimenter has been misled. And the most fundamental mistake made by the average man, be he motorcyclist or just the man in the street, is his idea of the substance denoted by the word vapor. Probably not in one case in twenty-five is he not laboring under the general impression that vapor is always something lighter than air.

"Why, it wouldn't be vapor if it were heavier than air," is the almost universal idea. "Steam is vapor and steam floats in the air, smoke ditto; mist is vapor and it also floats, hence vapor must be lighter than air. The only difference where gasoline vapor is concerned is that it is invisible.

The process of reasoning is short and to the point so that it carries conviction to the average mind. Where it falls short lies in not taking account of the fact that while the majority of vapors are lighter than air there are some that are exactly the reverse. In fact, at normal temperature most explosive vapors seem to possess this characteristic of weighing more than the same volume of air. Thus fire damp, which is a highly explosive vapor found in coal mines, is somewhat similar to gasoline vapor in that it will lie in strata close to the floor and in pockets, not mixing with the air except through a rise in temperature or disturbance of the atmosphere. The former combines it into an explosive mixture with the oxygen in the air by expansion, the latter mechanically and in either case the result is the same.

No better illustration of this could be brought to bear than an instance related by a repairman. A motorcycle tank had been sent in to him for repairs. It was one of those things that was in no hurry and was put by for that vague time in the future when "there is nothing else to do."

On this account it was shoved off in a corner of the shop amid a heap of miscellaneous odds and ends and there it stayed for a week or more, until finally its turn for attention arrived. It was empty when received; no gasoline had been put into it in the interim and both the supply outlet to the carburetter and the hole for filling had been open all that time.

Naturally the repairman concluded that the vapor had "risen" out of it and took no precautions before commencing work. He brought the blow torch to bear upon the joint that needed repairing and had the metal almost hot enough for the solder when there was an explosion that ended that tank's days of usefulness then and there and gave the repairman a fright that it took him some days to fully recover from. Here was a mystery "hot off the griddle," as it were, for certainly there could have been no gasoline vapor in that tank.

"No, of course not!" was the consensus of opinion and all to whom the repairman cited his experience, not omitting in detail his narrow escape from serious injury therefrom shook their heads wisely and agreed that gasoline was certainly a mystery. Some of them thought that gasoline must have settled into the cracks of the tank and laid there until converted into an explosive vapor by the flame of the torch, forgetting, of course, that gasoline is of such a volatile nature that it will evaporate visibly whenever exposed to the air and leave no trace whatever of its presence after a few minutes. Others put forth similarly unfounded theories which even their proponents did not in the end, consider tenable and gave up guessing.

But no explanation could be simpler. The tank was placed on the floor; in consequence the gasoline vapor could not have found a lower level had it not been confined in the tank. Conceding that the latter contained but the faintest traces of the vapor when received owing to its dryness this would have settled into a corner of a tank and been held there by atmospheric pressure, air naturally filling the remainder of the tank. And if undisturbed it probably would have remained in that condition for months at a time. Even heating the room might not have caused any change as unless a room is brought to a high temperature the air at the floor level does not become very warm. The gasoline vapor remained in the tank just as surely as would a charge of gunpowder put in the same place.

It only needed the heat of the soldering torch to expand it to a point where it formed the proper proportions with the air to make an explosive mixture and then it ignited with the surprising result. And the fact that out of such an array of talent not one of the motorcyclists who attempted to clear up the mystery, nor the repairman himself, could do so is simply from ignorance of the fact that gasoline vapor is

heavier than air. And the thing did not end there by any means for that same repairman was considerably puzzled for some time after that how to go about avoiding a repetition of the accident in the future. He decided that soldering tanks was not a safe pastime anyway but with a plumber's torch it was inviting disaster, so he thought he would confine himself to the soldering copper thereafter and he did so until a rider suggested the use of compressed air to empty the tank.

Another thought that filling the tank with water was even better, but any motorcyclist who has once filled the tank of his machine with water whether for this purpose or any other does not repeat the experiment willingly. As a matter of fact there is an instance on record in which water was employed to drive out the gasoline vapor from a tank which nevertheless exploded when a torch was applied to it, although the puff was not violent. Here indeed, was a genuine mystery in the opinion of all who heard it and it would have been one had the repairman done what he thought he did. Instead of filling the tank entirely he had really only rinsed it with water. Both gasoline and gasoline vapor though heavier than air, are considerably lighter than water, hence any gasoline that was actually in the tank floated on the surface of the water, most of it sticking to the sides of the tank when the water was poured out and the vapor was simply compressed into a corner of the tank by the partial filling and expanded into its old place once it had undisputed occupancy again. There was no mystery whatever about the explosion that resulted.

Any motorcyclist who wishes to inform himself in this respect cannot do so better than to take a smooth piece of metal such as a piece of sheet tin and pour some gasoline on it, let it remain a moment, then pour it off and pour some water on the same place. The water will run over the metal as if it had been greased forming into drops and not actually coming into contact with it. Better still, dip the tin into a bucket of water so that it will be completely covered. Withdraw it after a few moments and then look for traces of gasoline. A small proportion of it will be found still adhering to the metal and nothing but evaporation will thoroughly remove it. But it will be seen that drops of water also seem to have developed a liking for the metal plate and that is the reason why no motorcyclist who has ever filled the tank of his machine with water wants to do it again. It will take weeks and hundreds of miles of running to entirely free the tank from the drops of water that have stuck in it and these will create endless carburetter trouble until every trace of water has been removed. The quickest and most effective remedy is to remove the tank from the machine and subject the interior to a compressed or hot air treatment in order to evaporate the water.

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To Facilitate Matters Our Patrons Should Address us at P. O. Box 649.

NEW YORK, OCTOBER 20, 1906.

To Allay the Dust Nuisance.

However much it may be dwelt upon by the press, advocated by hobbists, and ridiculed by foreigners, nothing can serve to belittle nor to exaggerate the importance of the American highway to the American people. Though at times, the continual discussion of the good roads movement in its various phases may become wearisome, yet its purpose is a wise one, and the publicity which it gives to the cause must in the end be fruitful. Careful study of conditions as they exist to-day in all parts of the world, and observation of the methods of road laying employed, forces the conclusion that for general purposes, the macadamized road is the best. It also develops what is beyond a doubt a just conclusion, that the satisfactory solution of the highway problem rests not so much upon the development of new systems of construction, nor upon the revolutionary alteration of any already existent, but rather upon the modification of one essential feature of the macadam structure.

The great tests of time and service have revealed but two really striking weaknesses in roads of the macadam type. They are, the tendency of the surface to pulverize, at once forming dust and developing irregulari-

ties due to lack of homogeneity which serve to catch and retain dust which is foreign to to surface, and the disruption of the entire structure under the action of freshets or frost, both of which effects are directly attributable to the presence of water below the surface layer, or roof. The dust evil especially has been immensely intensified since automobiles became so numerous and has taken its place among the "burning questions" of the day. It therefore appears that both of these faults are directly chargeable to the character of the roof, which may be either liable to pulverization, erosion, or leakage; and that the most important field of endeavor in the good roads movement of to-day, must be that of surface structure, its composition, laying and maintenance.

Indeed, although the problem of laying durable foundations, which is the most appealing to the engineer, and that of dust prevention, which is the most interesting to the layman, appear wholly independent of one another, it seems that both are likely to be solved at one and the same time, by a process yet to be developed. Yet though the ideal method of road roofing is yet undiscovered, it is clear that certain progress is being made toward its evolution in the efforts to produce an effective binder and waterproofing for the surface. For it is perfectly evident that any surface which is resistant enough to answer the purpose, not subject to serious pulverization under the impact of hoof or the grinding of tire, which is even and free from pockets, and not liable to be washed away by surface water, must also be waterproof in its nature and hence suited to the needs of the lower strata.

Various methods of treating road surfaces for the purpose of laying or excluding the dust have been given trial during the last year or two, ranging in nature from the application of deliquescent salts layed in solution, through a series of oily and gummy substances, to tarry compounds mingled with such material as coke dust, blast furnace slag and powdered rock. In measure as these remedies diverge from the watery state, they seem to be successful, probably the best and most lasting results yet obtained having been secured by the use of the tar and slag combination. The drawbacks of the others are due largely to the results of evaporation and abrasion. Oil and tar compounds alone, while serving admirably at first, later develop a fine heavy dust, and eventually disappear altogether.

Hence the requirement of periodic renewal of the treatment, and the weakness of the method.

The measure of efficiency of any and all such applications indeed, appears to be the success with which they affect a permanent amalgamation of the material of the top layer. And on this basis of reasoning, the asphalt roadway seems to be the highest form of covering yet developed. It is in this line then, that the ultimate solution not alone of the dust problem, but of the permanent good road itself, is likely to be found. Its entire success hinges about the degree and quality of the cementation which it affects.

The verb at once suggests the noun, and the question naturally arises, Why not use cement itself, not as a covering alone, but as a binder for the basic material? And in this, despite the brittle nature of the substance as found under certain conditions, would seem to be a rational conclusion of the whole matter. Cement and its derivative, concrete, are now successfully applied to an infinity of uses, and in durability, adaptability and utility, are without a peer in the constructive arts. True, they are open to the objection in this connection, that they are brittle and subject to abrasion, yet the former difficulty is overcome by the use of proper foundation material and the elimination of uneven stresses, while the latter though open to question, could probably be overcome largely by the judicious intermingling with the cement, of gravel or pulverized rock.

The day of the cement coated road may never come. Another and better material than this may be found, or this may prove to be totally unfit for the purpose. Yet the tremendous growth of the cement industry within a brief space of time and the rapid amplification of its uses, breed a sort of blind faith that it is susceptible to any use whatever. Second this by the unmistakable fact that the present trend in dust laying and dust prevention is in this direction, and the possibility takes on a tinge of the probable which makes it seem almost a certainty.

When a mere man on a simple, silent 20-pound bicycle is able to pedal more than 59 miles in 60 minutes and better than 105 miles in two hours, the world-wide clatter created by the performances of the big, thundering 100 horsepower monsters that compete in Vanderbilt cup races and like events, seems gross exaggeration, indeed.

KNACK OF FLAT TRACK RACING

One of the "Armony Kings" Talks of the Winter Sport and Outlines Some of its Essentials.

"Just why so many bicycle racing men should be chary of flat floor riding is a thing that I never could understand," said George Guthrie Cameron, of the New York Athletic Club and the Eighth Regiment Athletic Association, who is, perhaps, one of the fastest and best known flat floor riders in the country, in an interview with the *Bicycling World* man, one day this week. "When pressed for an answer as to why they do not tackle flat floor riding in the winter time they give various excuses. As a rule they consider that riding a bicycle on a flat floor at a high rate of speed requires more skill and is more dangerous than riding on a banked track. To one who has never tried it, there seems to be some trick in keeping the near perpendicular while going fast, but this is all an illusion and one easily dispelled."

"I will admit that there are one or two little things that a rider, to be successful, must look after, but once these are learned, the rider gains confidence and in a little while is as much at home on a flat floor as he was on the steeply banked track.

"The first thing to consider is, naturally, the bicycle. This should not have too long a wheel base as the shorter it is the easier it is to take the turns on a small track without slipping. The *Reading Standard*, *Yale* or *Columbia* bicycles have about the right wheel base. The most important consideration and the thing to be looked after carefully is the tires for this is the most vital part of the flat floor rider's equipment. I use *Palmer* road racing tires, an inch and a quarter in diameter, as smaller tires afford less traction and are apt to be too lively. Before using the tires pump them up and let soak in water over night. After wiping them dry take a piece of coarse sand paper or emery cloth and rub all the soapstone from the outside until the tires are nearly black. This operation slows the tire, but it will make it take hold of the floor so that slipping is less likely to occur.

"Probably no style of bicycle racing brings out more freak positions than flat floor riding, and the skeptics have only to watch an armory race to see the truth of my assertion. Riders of the freak position variety seldom win a race, for the simple reason that they are not properly seated and cannot, perforce, obtain the full benefit of their expended energy. Since I began riding on the flat floor I have made particular study of position, from the days of Jay Eaton and Teddy Goodman, two of the fastest men that ever rode a floor, to the more recent days of "Billy" Frank, and although they all varied in height and weight,

all but Jay Eaton, had practically the same position. Eaton sat well forward on his wheel. Some riders think that flat floor riding requires a different posture than that employed in other kinds of racing, and that accounts for the freaks. I always ride the same position indoors that do out of doors except that I drop my saddle one inch, and I would advise riders who aspire to flat floor honors to do likewise.

"Nearly all the flat floor riders use $6\frac{1}{2}$ inch cranks with what we call a 'short pedal,' which is an ordinary pedal with the shaft cut off one-half inch. To do this take a *Star* pedal—that is the most easily cut—cut off the end that goes into the crank at the bottom of the thread and have a new thread cut on. This is, of course, only on the left or pole side, and is done so that the rider may lean over farther without chance of striking the inside pedal on the floor and throwing himself.

"With his mount in proper shape the rider is then ready to go out on to the floor.

Motorcycle Runs Amuck on Paris Track.

A slippery track and a fast motorcycle running amuck in attempting to pass another that had fallen, caused direful results at the Buffalo track, Paris, on October 8th. Two persons were killed and four badly injured. The accident happened just after the start of a motorcycle race between Pernette and Contant. Rain had begun to fall and the track was slippery but the men started and had ridden three laps at a speed of about 50 miles an hour when the chain on Pernette's machine snapped. The motorcycle slipped on the steep banking and fell, throwing its rider to the ground. Contant was close behind and he made a quick jerk to the right to pass between the fallen Pernette and a barrier. He missed the opening and struck a post. Contant was thrown off and the machine made a plunge through a solid wall of spectators. A panic ensued and after the attendants had restored something like order it was found that two young men had been instantly killed and two women and one man badly injured. Pernette was not injured but Contant was badly cut and bruised. It is doubtful if any more motorcycle races will be run on the Buffalo velodrome.

What the Old Man Wanted.

One of the most important traits in the composite of character which makes for success is knowing what you want. Next to this perhaps is the ability of stating one's need in comprehensible terms. The writer of the following advertisement doubtless possesses both of these qualifications to a high degree. Being an Irishman, however, he has laid himself open to grave suspicion. The "ad" appeared in a recent issue of a *Torquay* paper in the following terms:

"Wanted, a smart, active wife, well up in laundry work, fond of singing, can ride a bicycle, and be a loving old man's darling. Apply by letter with photo."

HUGH MACLEAN DOWNS DARRAGON

American, Now Dubbed the "Lady Killer," Rides in Remarkable Form—Mile a Minute in Motorcycle Race.

In a stirring race replete with incidents, Hugh MacLean, the American, defeated Louis Darragon, the motorpaced champion of France, by three-quarters of a lap in the 100 kilometre paced race at the Velodrome Parc des Princes, Paris, on October 7th. Simar, another Frenchman, finished third, two laps behind, and Louis Mettling, of Jamaica Plains, Mass., was fourth, so far back that the officials had gotten tired of counting the laps he had lost.

Darragon got away first at the start, followed in order, by Mettling, MacLean and Simar, and straightway began to set a terrific pace. His effort netted him a gain of a lap over both Simar and MacLean in the fifteenth lap, and a few laps later the French champion circled Mettling and MacLean, the latter for the second time. He was leading at 10 kilometres and covered this distance in 7:32 $\frac{1}{2}$.

In the twenty-sixth lap Darragon lapped Simar for the second time. MacLean though somewhat handicapped by defective pacing, having to change his machine, was still riding steadily. Darragon lapped Mettling in the thirtieth lap, and then there were cheers for the Frenchman. The position a 20 kilometres, ridden in 14:57, was Darragon, Simar, by three laps, MacLean by four and Mettling by eight. The time for 30 kilometres was 22:48 $\frac{1}{2}$. All at once MacLean seemed to freshen up and he began to give battle to Darragon, who had begun to tire. MacLean lapped Simar at 50 kilometres, Darragon leading at that point in 38:31. Just after the 60th kilometre Darragon punctured and he had hardly more than remounted than his rear tire went flat again, MacLean in the interval gaining two laps. From that time the battle raged in earnest and for several miles MacLean and Darragon rode side by side, but the latter was forced to admit the superior strength of the American. At 70 kilometres MacLean—his nickname in France is the "Lady-Killer"—was only one lap behind Darragon and had gained two laps on Simar. Darragon could not hold out against the fast pace that MacLean set and the American gained a lap.

Shortly after 90 kilometres, covered by MacLean in 1:12:30, Darragon came to life again and passed MacLean. The American came back with a sprint in the last minute to go, passed Darragon and rode over the tape a winner by three-quarters of a lap.

At the same meet Guippone won the 10 kilometre (6.21 miles) motorcycle race from Robert and Moreau in remarkably fast time. He beat Robert by three-quarters of a lap and covered the distance in 5:54 $\frac{1}{2}$, better than a mile a minute.

GOOD JUDGMENT OF PACE ON ROAD

Motorcyclists Indulge in Instructive Run
Which Tests Their Think-Tanks—
Majority Stand the Test.

Postponements usually "play the deuce" with an event of any sort; naturally, two of them did not serve to swell the number of participants in the New York Motorcycle Club's regularity and speed judgment run, which finally was favored by clear skies on Sunday last, 21st inst. The postponements did not, however, detract a whit from the interesting character of the event, which is a vast improvement on the garden type of century run. It sets a premium on regular running and entails and encourages judgment of both pace and distance, the rules requiring that the dials of cyclometers and speedometers be covered.

The course was from the club's quarters, 238 West 108th street, to Bedford, N. Y., and return—two relays of 40 miles, so to speak. The participants were privileged to start when they pleased within the limits of a half hour and knew but two of the places at which their times would be taken, at Bedford and at the finishing point, the pace being figured on a 15-mile basis. In addition, times were to be taken at four secret checking points en route, Capt. Bendix, Roland Douglas and Frederick William Horenburger going ahead to lay the "traps." With an allowance of five minutes' "leeway" at each point, the score was based on a penalty of 1 point for each minute the rider was late or "too previous," the minus mark in the appended table meaning "late" and the plus mark "early":

Rider and Machine	18 Miles Secret Check	34 Miles Secret Check	40 Miles Secret Check	12 Miles Secret Check	29 Miles Secret Check	40 Miles Secret Check	Variations	Score
A. Kreuder, Marsh.....	+3	-2	-1	+1	-1	0	8 min.	100%
M. E. Toepel, Indian.....	-2	-1	-3	+4	-1	0	11 "	100%
G. P. Jenkins, March.....	0	+3	0	+5	-2	-2	12 "	100%
Edw Malloy, Metz.....	+4	-2	-1	+2	-1	-2	12 "	100%
R. W. Ebling, Indian.....	+2	-2	-2	+5	-3	0	14 "	100%
M. Edson, Indian.....	+2	-2	-2	+5	-3	-1	15 "	100%
H. A. Glieman, Tiger.....	+4	-2	-1	+2	-6	-2	17 "	99%
F. Vierck, Indian.....	+4	-2	-1	+5	-6	-1	19 "	99%
A. Foss, Indian.....	+12	-2	-2	+5	-1	0	22 "	93%
H. E. Kreuder, Indian.....	+2	-2	-18	+5	-2	-2	31 "	87%
J. F. McLaughlin, N. S. U.....	+5	+13	-20	+5	-20	-20		
A. L. Bartsch, Indian.....	-2	-1	-20	+4	-1	-20		

Also started—G. L. C. Earle (Indian) and Gaston De Raimbouville (Columbia).

Fourteen riders started and as Toepel had the reputation of being well up on that sort of thing, and of having a magneto timed to the minute, most of the riders found it convenient to hover in his vicinity. The result proved their wisdom, although A. Kreuder cut the finest pace of all. Twelve men completed the journey, six of them with perfect judgment, leeway considered, and four of the others got well within the 75 per cent. entitling them to souvenir

watches. J. F. McLaughlin, who rode the first N. S. U. brought to this country, and A. L. Bartsch had a peck of tire trouble and though they finished they fell outside the breastworks. G. L. C. Earle broke an exhaust valve and Gaston Rambouville was lost or stolen en route.

How to Deal with Dogs.

Dogs, like wives and other chattels, now have an assured and well defined status in most civilized countries. Recently, following the lead of American statutory enactment, the Supreme Court of Appeals in Germany has decided that a cyclist is justified in shooting a dog that is endangering his life by its behavior. Which calls to mind a discussion which has lately been waxing warm in the English cycling press over the best way of treating the militant canine highwayman. Several sage plans have been advanced, among them this one which reads like a medicine testimonial:

"Sir—I should like others to try my method of dealing with dogs. Such method may not at first be credited, but it has very seldom failed to have effect. It is to whistle to the dog and entice it by motion of your hand to come closer, or to suddenly turn round and call it towards you. They will find almost invariably the dog will do exactly the opposite; it is just the kind of treatment he is not prepared for, and he will slink off nonplussed."

Still another who relies on the power of the human voice, evidently has had dealings only with the "rag-doll" type of dog and not with the barnyard variety which flourishes in rural America. He says:

"I have been surprised when reading the various recommendations given for dealing

with dogs, given to worrying cyclists, that no mention is made of that most powerful preventative of their attacks, namely, the human voice. Like others, I have been subjected to their attacks, but have never known the words 'Down, sir, down!' to fail. But they must be uttered in an authoritative, stern voice, such as keepers of dogs use, and without sign of fear, or they will be of no effect."

CHANGES IN THE RECORD TABLE

Close of Season Sees Quite a Few New
Figures in Place—Notable Feats
of Foreign Cracks.

So far as records are concerned America's present season of bicycle racing has come to an end and the numerous new figures that have been set up show that racing men are travelling faster than ever before, both at home and broad. In America all the record-breaking has been done at Salt Lake City, and the major portion of it by Iver Lawson. Four new professional handicap records have been set up—the half-mile in 53½ seconds, by A. J. Clarke, and the three-quarter (1:21½), the two (3:41) and the three miles (5:49), all by Lawson. In professional competition unpaced the one-half, three-quarter and two miles were broken in the handicap events mentioned above, and in a three mile open race Lawson reduced the time for three miles to 5:33½. The five mile record was also broken, but at Ogden, by Ernest A. Pye, in 9:48½. In a quarter-mile unpaced trial against time Lawson lowered the figure to 23½ seconds. Three amateur records were broken at Salt Lake City and to Jack Hume go all the honors. He rode a three-quarter mile, one mile and five mile handicap in, respectively, 1:25½, 1:55½ and 10:36.

Abroad several notable rides have been made. On June 20th, at Munich, Thaddeus Robl, behind pace, created a new distance for one hour of 57 miles 117 yards, but only a month passed before Paul Guignard did likewise on the same track, raising the distance to 59 miles 30½ yards. On the 30th of last month at Leipsiz, Guignard made another notable ride and in two hours behind pace covered 105 miles 195 yards, a new world's record. On July 19th, Gabriel Poulain, former champion of the world, covered one kilometre behind pace in 58 seconds at the Parc des Princes track, in Paris.

All the records for paced performances without wind shields from 10 kilometres to one hour have been broken this year and with the exception of the 20 kilometre in 14:14½ by Lorgen, they have been bettered by American riders on foreign ground. The 10, 30, 40 and 50 kilometre records stand at, respectively, 7:24½, 21:34½, 29:02½ and 36:11½, and were established by Louis Mettling. On August 19th, in Paris, Robert J. Walthour cracked the 60, 70 and 80 kilometre records in 43:16½, 50:19 and 57:38½, and during the hour rode 83 kilometres 140 metres, a new distance.

But few amateur records have been broken, the only one to be recorded being the one hour behind pace. Only a month ago Tubbox, a Belgian, rode 43 miles 1,246 yards during the hour, but a week later, Bardonneau, a French amateur, erased

these numerals and substituted 47 miles 1,662 yards.

The five mile unpaced ride of Charles Schlee, at Vailsburg, August 8, in 10:48½, and the six mile unpaced ride of W. M. Samuelson, at Salt Lake City, August 3, in 12:30½, while they cannot be classed as records, simply because there is no provision in the official book for pursuit records, are nevertheless records, though unofficial, and most notable performances.

Petit-Breton Wins Long Race.

Petit-Breton won the last important French road race of the season, from Paris to Tours, a distance of 149¾ miles, which was decided on October 1st. Two prime favorites were among the fifty starters—Breton and Trousselier. This pair managed to shake off their followers about forty miles from the start, but they could not get away from each other so they fought the finish out over the track for four laps. Both riders were together at 220 yards from the tape when Breton jumped for a gain of two lengths. Trousselier was not napping, however, and regained the distance. At 10 yards to go Breton recovered and jumped again, winning out by only a few inches. The final classification was Petit-Breton, 7:55:00; Louis Trousselier, 7:55:00½; Cornet, 8:05:30 and Christophe, 8:05:50.

Reporter on a 3,000-mile Jaunt.

Axel Johnson, a newspaper man of Bridgeport, Conn., reached Buffalo, N. Y., Thursday morning, en route to Chicago and return. Johnson hopes to do 3,000 miles on the trip and expects to reach Chicago in 70 days from the start, the journey having begun at Bridgeport on September 26th. He carries a letter from the Mayor of the Connecticut city to the Mayor of Chicago. According to the conditions of the trip the rider must make his expenses en route. Johnson says he is getting \$600 for the trip in addition to space rates for all matter he sends in to his paper. His only adventures so far have been being chased by a bull, when he had to jump into the Erie canal to escape it, and being arrested for riding on the tow path. At Buffalo he was 24 hours behind his schedule.

These be the Genuine Veterans.

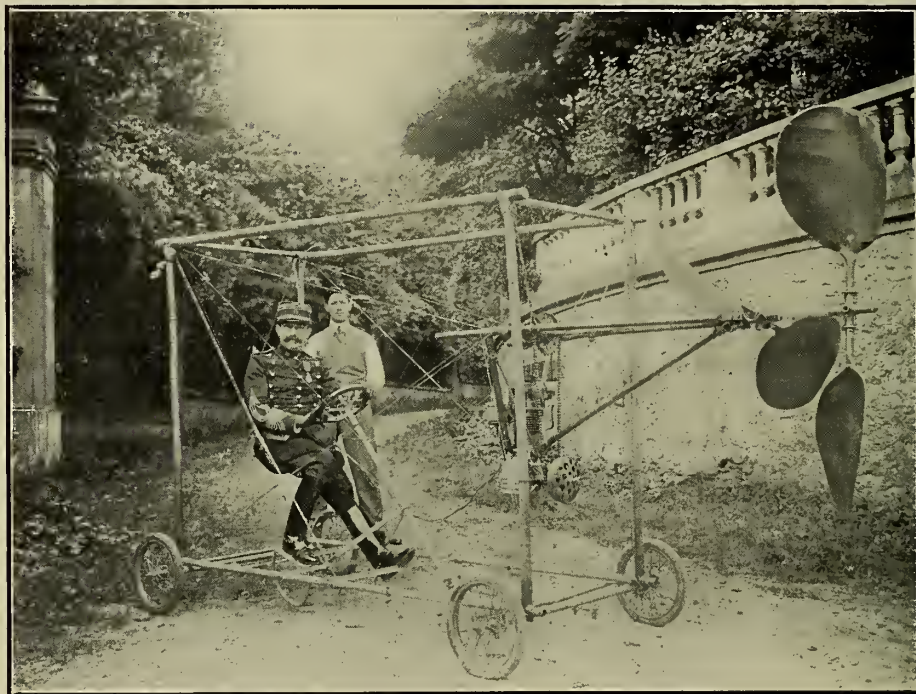
On the 3rd of October, the name of Walter U. Lawson, of New York City, was added to the Boston Bicycle Club's roster of Club Veterans, which now stands in order of seniority as follows: 1, Frank W. Weston, 11th Feb., 1878; 2, Paul Butler, 11th Feb., 1878; 3, Willis Farrington, 11th Feb., 1878; 4, George B. Woodward, 11th Feb., 1878; 5, J. G. Dalton, 11th Feb., 1878; 6, J. S. Dean, 4th April, 1878; 7, A. W. Drake, 30th Sept., 1879; 8, E. F. Lowry, 3rd Nov., 1879; 9, W. B. Everett, 7th June, 1880; 10, W. V. Burt, 7th Feb., 1881; 11, C. W. Fourdrinier, 16th May, 1881, and 12, W. U. Lawson, 3rd Oct., 1881.

"Wind Wagon," French Version.

"Wind wagons," akin to that recently produced by G. H. Curtiss, of Hammondsport, N. Y., appear likely to become epidemic, although all recent efforts in that direction have been designed with but one object in view—to test the efficiency of propellers for aeronautical purposes by utilizing the resistance of the air as a force against which to push forward.

Quite the latest contrivance of this sort is the vehicle of Captain Ferber of France,

practices up a bit. The best race of the afternoon was the ten mile handicap, which was won by Joe M. Eifler, from scratch, who covered the distance in 27:39, F. C. Graf, another scratch man, running second, and being beaten at the tape by only a half-wheel's length. F. Bauldorf, riding from the 350 yard mark, captured the one mile handicap in 2:16½. The miss and out race was one of the features and one rider was called out each time around until only four were left, who rode an extra lap to



shown by the accompanying illustration, which he styles an air propellor driven voiturette. The machine consists of a skeleton of tubing mounted on four wire suspension wheels, and is fitted with a single cylinder 9 horsepower Buchet motor which drives two propellers, each fitted with two blades, 3 feet 11¼ inches in diameter. Captain Ferber's plan is to find out the power of the engine required, the power developed by the propellor, and the number of revolutions at which it has to rotate per minute to drive, or rather draw, the vehicle at a certain speed. In recent trials the vehicle has attained a speed of 90 kilometres (58½ miles) an hour, it is stated.

Century Men at Track Events.

It was quite a family party composed of Century Road Club Association members that gathered at Itjen's driving park, at Lynbrook, L. I., last Sunday, 14th inst., to witness and compete in the club races that were held there. Ernest Olufs, the 25-mile road champion, from whom so much was expected, did not do well, getting only one fifth in the mile handicap and in consequence Olufs has hid his championship medal behind the mantle clock until he

decide the finish. F. C. Graf beat J. M. Eifler in the sprint, George Glunz and John Strauss finished, in order, third and fourth. The distance was four miles and the time 13:05. Following this J. M. Eifler made his debut as a pace follower and rode an exhibition mile in 2:16. The summaries:

One mile handicap—Won by F. Bauldorf (350 yards); second, Charles Voelker (430 yards); third, W. Minnerly (270 yards); fourth, John Strauss (300 yards); fifth, Ernest Olufs (150 yards). Time, 2:16½.

Ten mile handicap—Won by J. M. Eifler (scratch); second, F. C. Graf (scratch); third, George Glunz (1:00); fourth, J. Strauss (2:45); fifth, Charles Voelker (3:00). Times, 27:39, 27:39½, 30:37, 32:22½, 33:17.

Miss and out—Won by F. C. Graf; second, J. M. Eifler; third, George Glunz; fourth, J. Strauss. Distance, 4 miles. Time, 13:05.

One mile motorpaced exhibition—By J. M. Eifler. Time, 2:16.

"The A B C of Electricity" will aid you in understanding many things about motors that may now seem hard of understanding. Price, 50 cents. The Bicycling World Co., 154 Nassau Street, New York City. ***

SHERWOOD IS AMATEUR CHAMPION

Final Event is Postponed but His Honors are Safe—His Record and the Records of the Near-Champion.

Charles A. Sherwood, the captain of the New York Athletic Club's bicycle team is virtually amateur champion of America for the season of 1906, for although the last race of the series, the one-quarter mile, has not been or will not be held until the Saturday night preceding the six-day race, there are only two things that will prevent the popular young Wall street "broker" from wearing the laurels—death and being shut out of the final race, neither of which are to be looked for. The last race was to have been run last Sunday at Vailsburg, but the management took it into its head to close the track for the season, which left the final race undecided.

Sherwood, at the present standing, is far in the lead with 20 points and George Cameron, of the New York A. C., stands second with 15 points. The Roy Wheelmen captured third honors as two of their riders, James Zanes and Watson J. Kluczek, are tied with 5 points. Urban McDonald, of the Tiger Wheelmen, and A. C. Spain, of Bloomfield, N. J., have 3 points each, Charles Mock 2 points and Frank Eifler and Michael Ferrari 1 each.

Summed up, the season at Vailsburg has been rather unsatisfactory, and of the on and off order. Starting with the first meet on April 29th, the track closed on July 8th for want of patronage. Then a new manager took hold and although somewhat hampered by a strike among the professional riders, he survived, introduced motor-paced racing again, and made it pay. What next season will bring forth is a mystery and even the most sanguine dare not prophecy.

There is no rider better fitted to succeed Marcus Hurley and Matt Downey to the amateur championship than Charles A. Sherwood, and his riding at Vailsburg this year clearly demonstrated that he is the fastest amateur track rider in the country at the present time. Sherwood is young, he was 20 years old last July, and a perfect specimen of athletic youth. He has a distinct personality that has won for him a wide and constantly increasing circle of friends, one that is enjoyed by but few bicycle riders at the present day. This may be because Sherwood has always followed the golden rule in all his dealings, but there is no denying that he is the most popular rider in America. Sherwood's career as a racing cyclist has been brief but marked by honor all the way. He started riding in 1903 at the old Hillside oval and was fairly successful, winning the C. R. C. A. championship during that year. In 1904 he rode at Vailsburg with good success and while he did not win as many firsts as the older riders he finished in the

money" in nearly every race he started in. The following year he made even a more brilliant showing, winning a great many firsts and seconds and finishing fourth in the championship. This year he was handicapped by not being allowed to ride until August 5th. He was among a large number turned professional at the beginning of the year by the Board of Control of the National Cycling Association, and after a long fight before the Board of Appeals of that body he was reinstated with a clean bill. Starting on August 5th, he won 8 firsts, 5 seconds and 2 thirds, the largest individual winner of the season and in the



CHAS. A. SHERWOOD

championship series he got the titles in the two, five and one-third mile events. Sherwood rode a Yale bicycle this season.

George A. Cameron also fared well this season and had he not been in so many combinations to help other riders he would have gotten more than he did. During the season he got 5 firsts, 13 seconds and 6 fourths and the title of one mile champion. He also rode a Yale. Watson J. Kluczek would, if he had taken better care of himself physically, made a more brilliant showing than he did. As it is there is probably no better unpaced rider in the country in the amateur ranks. Kluczek copped 4 firsts, 2 seconds, 2 thirds and 1 fourth and the honor of styling himself half-mile champion. He rode a Tribune bicycle. Urban MacDonald got 3 firsts, 3 seconds and 1 fourth while he rode and Frank Eifler 2 firsts, 2 thirds and 2 fourths. MacDonald will turn professional to ride in the six-day race and is said to be teamed with A. W. MacDonald, of Boston, who broke into the game last winter with notable results.

HOW TOURIST FOOLED THE TALENT

Proves His "Fifty Pounds of Iron" is no Handicap by Romping in First—St.

Louis Race a Rare Reunion.

St. Louis held a road race on Sunday last, 14th inst. The fact may not appear remarkable but it is remarkable. It was the first contest of the sort that had occurred for many long years in that once seething cauldron of cycling interest and excitement and there were present some of those to whom tradition still clings. Some of these old-timers who were of the opinion that the present generation can not ride as fast as they themselves once rode, were handed out a big surprise when the St. Louis Cycling Club held the road race over the 14-mile stretch in the Olive street road. Indeed, some of those of the "old school" who thought they could still ride, were forced to work so hard that they could hardly catch their breath for some time after rolling into Hilltown, which was the finishing point of the race. At the starting point there were smiles on the countenances of those contestants who had dropped their handle bars, raised their gears, discarded their coaster brakes, etc., when Robert Warncke, a nine-minute man, came to the line with his regular touring Pierce, with cushion frame and fork, coaster brake, raised handle bars, big tool kit, lamp and what not. Some one facetiously remarked that the handicapper should have been more considerate in dealing with a new man who would race with 50 pounds of useless iron. But Warncke was never again seen by those yet to start until after he was recorded the winner, 48 minutes and 29 seconds later.

Warncke "showed 'em" that it is not necessary to discard all appliances of comfort for the sake of winning a race.

J. H. Anderson, another man, or youth rather, who can write the complete history of his riding career in very few lines, created another big surprise by beating Bert Harding, the long acknowledged "king of the road" in Missouri parts out of the time prize by 11 seconds. Anderson covered the 14 miles of indifferent, dusty, up-grade course in 41 minutes and 34 seconds, or at an average of a little more than 20 miles per hour, his ride being a very creditable one. He also annexed the second place prize.

H. C. Ashlock, whose reputation was that of being one of the biggest loafers ever venturing out on the road, and whose chief distinction is the baldness of his head, was said to have been riding in wonderful form but when about 10 miles out, however, he began to experience difficulty in steering and as he dismounted to investigate his bicycle, which had given him good service for eleven years, it fell to the ground in three pieces.

There were several hundred wheelmen

gathered at the finishing point where a big fine dinner was being prepared—a larger cycling gathering at any one point on a country road near St. Louis than at any time within the last ten years. After dinner the crowd was entertained by Hal Greenwood, who told of his wonderful rides in the days of the ordinary, Wm. M. Roxborough, alias "Heavy," who related how he once worked up to the pitch of riding a match race with "Billy" Laing; reminiscent tales by Hayden and Rubbleman, "Bob" Holm, "Pete" Sanders and others were in order. Indeed, the after-dinner scene was one of a reunion of the veterans of the strenuous days of the ordinary.

To get some of these old-timers out, as well as to carry the contestants' clothes, etc., it was necessary to resort to the use of several automobiles one of which was a light runabout; it was this latter machine that was left at the disposal of Rosborough and Rubbleman, both of whom are of gigantic proportions. The machine broke down under the great weight.

The summaries follow:

Rider.	Hdcp.	Time.
1. Robt. Warncke.....	9:00	48:29
2. J. H. Anderson.....	2:00	41:34
3. Fred. U. Harris.....	4:30	
4. H. G. Wolzendorf.....	4:20	
5. Arthur Haerting.....	4:30	
6. Wm. Wallace.....	7:30	
7. B. C. Hopkins.....	4:00	
8. Geo. Anderson.....	2:00	
9. L. M. Stringer.....	6:30	
10. A. G. Harding.....	scratch	43:07
11. C. L. Barr.....	4:00	
12. H. W. Lang.....	4:00	
13. Geo. H. Breing.....	6:00	
14. Arthur Carp.....	1:00	
15. Robt. Bersch.....	7:30	
16. A. L. Brinker.....	9:00	
17. Aug. J. Schmidt.....	7:00	
18. V. Bauer.....	7:00	
19. E. G. Bauer.....	7:00	

Time prize winners:

1. J. H. Anderson.....	41:34
2. A. G. Harding.....	41:55
3. Geo. Anderson.....	43:07

The only incident of the race that provoked comment was the annoyance caused the contestants by a number of motorcyclists of the "open muffler" kind who persisted in riding close to the contestants and blinding them with dust. It is needless to remark that the ears of these selfish individuals were deaf to any remarks directed to them by those wheelmen and motorcyclists who have the interests of cycling and motorcycling at heart.

Robl Wins the Grand Prix.

Thaddeus Robl won the 100-kilometre Grand Prix of Europe at Berlin, on September 30th, crossing the tape 3 kilometres in front of Bruni Denke and leading Nat Butler by 7 kilometres. Louis Darragon was a starter but quit early in the race.

Abroad they call a "blind run" a "surprise run." The idea is identical and is as productive of as much genuine and wholesome recreation under one name as the other.

AUTUMN CYCLING.

A Mud-Plugging Song.

When the autumn tints with its frosty hints
The green of the trees with with brown,
And every day a garb of grey
Envelopes the murky town,
We lower our gear and know no fear
As we fit the mudguard wide,
And pedal along with joyful song
In praise of the autumn ride.
Though the mud may splash
As we onward dash,
And the sun conceal his rays,
We pedal along
With joyful song
A-riding in autumn days.

Then our spins are short, for our autumn sport

A quick fatigue can bring,
What matters it if the roads be stiff
While the mud marks round us cling?
Though the pace be slow as we gently go
Awheel in our hardy pride,
That in mud or rain we never refrain
From taking an autumn ride.
Though the rain descend
Till our journey's end,
And the sun conceal his rays,
In mud or rain
We'll ne'er refrain
From riding in autumn days.

When the season's o'er, and in clubs galore
The closing run has passed,
And the lengthening eves and falling leaves
Prove the year is waning fast,
Yet the splashing mud can fire your blood
Till we feel, whate'er betide,
That naught on earth can equal the mirth
That springs from an autumn ride.
We fear no ill,
Though days be chill
And the sun conceal his rays,
There's naught on earth
Can equal the mirth
Of riding in autumn days.
—T. Hodgkinson in Cycling.

Champagne from Club Champion's Cup.

Elias Kahn, riding with a handicap of five minutes, won the twenty mile handicap road race of the Edgecombe Wheelmen, at Valley Stream, L. I., last Sunday, 14th inst., covering the distance in 1 hour 3 minutes $\frac{3}{5}$ seconds. Otto C. Brandes, from scratch, and minus his locally famous bath robe, crossed the tape and won first time prize. His time was 56:00 $\frac{1}{2}$.

This was the sixth race of a series by which the club championship of the New York organization is decided and it attracted eighteen members. The course was from Valley Stream to Springfield, thence to Lynbrook and back to Valley Stream, twice, making the requisite twenty miles. The final race of the series will be held tomorrow at Valley Stream. The Edgecombes are putting up a bicycle and a cup which will be presented to the winner at the night of the annual ball, on October 27th. No doubt the ball will attract many for the Edgecombes promise to give everybody a sip of champagne from the championship cup on that festive occasion. The ball will be held at Majestic Hall. Second, third and fourth men in the championship table will receive, respectively, solid gold, silver and bronze medals. With only one

more race to be run the standing is, in points: Nick Kind, 45; Emil Koster, 44; Chris Kind, 40; Al Anderson, 39; Otto C. Brandes, 35; Reese Hughes, 31; Richard Hughes, 31; S. R. Morrison, 26; William Voehringer, 19, and Frank Lane, 10.

That the Edgecombes mean to do things in the future is evinced by the fact that they have appointed a press agent to disseminate news of the club's doings. His name is John King and he it was who conceived the happy idea of giving all the guests at the forthcoming ball a drink of champagne from the championship cup.

The summary of last Sunday's race follows:

Pos.	Rider.	Hdcp.	Time.
		Min.	H.M.S.
1.	Elias Kahn.....	5:00	1:01:00 $\frac{3}{4}$
2.	Otto C. Brandes.....	scratch	0:56:00 $\frac{1}{2}$
3.	Christopher Kind.....	2:00	0:58:00 $\frac{3}{4}$
4.	Emil Koster.....	3:00	1:01:00 $\frac{1}{2}$
5.	Nicholas Kind.....	1:00	0:57:00 $\frac{3}{4}$
6.	Sam R. Morrison.....	1:00	0:58:00 $\frac{3}{4}$
7.	Alfred Anderson.....	2:00	1:00:00 $\frac{1}{2}$
8.	Richard Hughes.....	7:00	1:03:00 $\frac{1}{2}$
9.	Bernhard Glemba.....	7:00	1:03:00 $\frac{3}{4}$

Bardonneau Boosts Hour Record.

The world's hour amateur paced record of 43 miles 1,246 yards, set up only recently by Tubbax, has been broken again, this time by Bardonneau, who won the amateur world's paced championship at Geneva this year when he beat Tubbax. The feat was accomplished on October 4th, at the Parc des Princes track, Paris, and the new figures are 47 miles 1,661 yards. Bardonneau rode in hard luck through defective pacing and numerous punctures or undoubtedly would have raised the figures to 50 miles. The performance was officially timed by M. Audustere, of the Union Velocipedique Francais.

More Foreign Candidates for Six-Days.

Several more candidates' names have been cabled from Paris to P. T. Powers as willing to ride in the annual six-day race. They are Trousselier, Dussot, Gougoltz, Doerflinger, who have ridden before; Nedela, Parresieux, Ingold, Catteau and Hedspeth, the negro. With those cabled last week—Petit-Breton, Cadolle, Rutt, Vanoni, Vanderstuyft, Stol, and Georget brothers—the promoter will have his work cut out in choosing the three or four teams of foreigners that will be selected.

Butler in a Falling Match.

A regular falling match resulted at the October meet at Cologne which attracted 10,000 spectators. Butler, the American, fell in every heat of the paced race and was bruised considerably. Huber fell and broke his right clavicle and Dubois was bruised in another mixup. The chief event, the Prix d'Adieu, in three heats, at 10, 30 and 50 kilometres, was won in final classification by Gunther with 27 points, Bode-wig was second with 17 points and Nat Butler third with 10 points.

CLOTHING FOR COLD WEATHER

One of the All-the-Year-'Round Brigade
Offers Advice on the Subject, also
Regarding Rain Coats.

"Although we are not done, I trust, with pleasant weather yet, it will not be long before we have the wet season with us, and many cyclists—too many, I am afraid—as soon as the rain comes and the short days limit the period of drying sun, so that the roads become perpetually muddy, will be vaselineing their bicycles and putting them away for the winter," says a contributor to *Cycling*. "As one who has never had a bicycle out of use at any period for the last 32 years, let me hope that cyclists who have in the past been accustomed to treat their bicycles in this fashion, will mend their ways and enjoy the delights of cycling in the winter, which I can assure them are quite as enjoyable as, though entirely different from, the delights of summer riding. To those who contemplate this, and to novices, in the matter generally, a few words on the subject of winter equipment of clothes may not be out of place, so that they can be prepared in time, for I need not remark that to be properly or improperly clothed for cycling at any season of the year may make or mar the pleasures of its pursuit.

"In considering the question of clothing for winter cycling, it must be remembered that whilst riding one is stoking up a continuous fire within, and also that one rarely stops about much in winter time. The dallying by the wayside in leafy glades and beauty spots, which is one of the attractions of summer cycling, does not find its counterpart at the end of the year. Hence it will be seen it is not necessary to clothe too heavily, though at the same time it is the greatest mistake in the world to clothe too lightly. To begin with—as in summer—"all wool" for the underclothes must be insisted upon. The Jaeger productions and others of similar character are usually made in three thicknesses, and the thickest will not be at all too thick for riding when the air is full of cold moisture, or the frost is in the ground. A pair of good thick stockings, such as those worn by golfers or fishing men, will also be a *sine qua non*. In selecting these, I would counsel the buyer to be particularly careful to see that they are large enough. The foot should fit easily into its place, and the stocking should pass over the leg freely without much pulling, the reason being that, with a tight stocking, the meshes of the fabric are opened out, and the effective protection of the wool is greatly reduced. Further, in cold weather the freest circulation of the blood which is possible is required, and nothing which will tend in any way to check this must be tolerated.

"This relates equally to the foot of the stocking, and particularly to the boot or

shoe, and, indeed, in this respect the entire pleasures of cycling in really wintry weather, when there is perhaps 15° or 20° frost on the ground, may be utterly marred by ill-fitting foot-wear. I cannot lay too great stress on this. Irrespective of whether shoes or boots are worn, they must fit loosely, and not be tight in any place. A tight shoe in winter riding is a curse, for it impedes the circulation, with the result that, as the foot is passing through the air (as it goes round with the pedal) at a very high rate of speed, the toes become numbed and practically frozen, and anyone who has once had a nicely frozen foot, and has experienced the delights of thawing it again—especially if he has inadvertently attempted to toast it in front of the fire—will not hanker after a second experience. Owing to the greater freedom of action with the shoe, I recommend its retention for winter use, but as the mud is constantly with us, and the feet catch most of the mud that is going, it is advisable to protect them and the lower part of the leg with spats. These need not necessarily be knee high. About three-quarter length is sufficient, and the best form I know is one which I have not been able to buy for years, but which can doubtless be made to order. It has an elastic insertion down the back, thus securing a comfortable close fit without either looseness or excessive tightness as when buttons and the exact fit to the leg are depended upon. The spats should be of cloth, and on no account do I advise the adoption of leather putties or motor leggings, which are altogether too hot for cycling, besides restricting muscular action too much. They are indeed about the most unsuitable contrivances for cycling use ever invented. With regard to the clothing itself above, a flannel shirt of good thickness with flannel collar, a close-grained material of fair but not excessive thickness is best.

A good hard winter tweed makes as good a cycling suit as anything for winter riding, and there need be but little difference made in the design from that useable in summer. The principal thing to insist upon in having the front of the coat cut so that the collar can be turned up and brought quite close over the chest, with a good broad buttoned tab to button across the neckpiece. For ordinary winter riding a light silk scarf or neck wrap (easily carried in the pocket) fits in nicely with this arrangement. Unless the weather turns particularly cold—as it does sometimes in the evening on the return run—there is no need to wear this scarf at all whilst riding, but directly one has occasion to stop, if it is slipped round the neck and the collar turned up round it and buttoned across, the hot vapors of the body will be retained without stuffiness, and the comfort of the rider ensured. An ordinary cycling cap of the same tweed as the clothes will complete the outfit, although upon the rare occasions when the temperature falls to 15°

or 20° below zero—which affords absolutely the most enjoyable cycling I know—it may be advisable to supplement the outfit by the addition of a sweater over the waistcoat and under the coat, or, what is perhaps better, this garment may be carried on the handlebar and put on at the arrival at the half-way house, and retained in position for the ride home at night, when the temperature will be lower still. In the way of special preparation for the rain, the ordinary capes are of but little use. A cyclist with one of these reminds me very much of the ostrich hiding his head in the sand. What is wanted is a coat with sleeves, which will come right down to 3 inches below the saddle, and if this is then supplemented by light waterproof leggings, either attached to the coat or separately, the outfit will be complete. The lower limbs below the knee can look after themselves; they will be sufficiently protected by the thick woolen garments in which they are encased, and moreover, they get but little rain. I prefer these waterproof garments to be made of a material like gabardine, rather than the mackintosh rubber waterproofing usually supplied, as this latter keeps the moisture from the body too much. A combined garment something after the style of the "dry knee" garment is about as good as any I know of, so far as the legs are concerned, a couple of straight pieces of material, 15 inches wide, and as long as the thigh to below the knee, with three straps to fasten above, below and in the middle, leaving the under side or thigh open—no rain gets there when riding—will quite sufficiently protect the parts which most need protection, viz., the muscles, immediately above the knee, which are more susceptible than any other in the body to rheumatic attacks resulting from undue damp."

Used Stone as a Brake.

A tourist who had been traversing a forsaken mountainous region experienced considerable difficulty in descending the endless grades, on account of the heating of his brakes and the wear of the tires. Finally he hit upon an expedient, which, to employ a provincialism, "Let him down easy," at the same time saving the machine. The method was simple enough, and consisted in merely hitching a stone weighing ten or fifteen pounds to the end of a rope and letting it drag behind him. Unfortunately however the tourist in question failed to state where he got the rope.

Century Diet in India.

From far-distant India comes a long-range tale of how a bicyclist rode 109½ miles between 8:45 a. m. and 8:30 p. m., on a large sweet orange, half a pound of milk chocolate and a glass of lime juice and soda. A man who could subsist on that combination certainly ought to be capable of two full centuries, even in so hot a country as India.

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NOISES AND THEIR MEANING

Usually They Mean Trouble and a Wise Motorcyclist Gives Prompt Heed—
Experience of an Unwise One.

"Keep your ear trained for noises and keep it wide open all the time," said the Expert Motorcyclist in response to a query by a Bicycling World man as to what he considered the most essential duty of the rider once under way.

"By that, of course, I mean strange noises. Keep the fact always in mind that you are riding a piece of machinery that is going through certain processes constantly and developing power automatically and that no matter how perfect a piece of work it may be and no matter what infinite pains have been expended upon it with a view to making it proof against breakdowns, it is subject to derangement at any moment and that skill in running in it lies more in being able to realize just when to stop it and make a needed adjustment than in anything else.

"Most people think that a locomotive engineer's duties are confined to pulling the throttle and keeping a sharp lookout for signals but it would be a poor engineer who did not have his sense of hearing keenly on the alert every moment of the time that his locomotive is covering space at the rate of a mile or better. He makes mental note of every out of the way noise that strikes his ear and he takes particular pains to look for their cause at the first opportunity.

"Just what do I mean by strange noises?" he repeated inquiringly.

"Naturally every machine makes a noise when under way and sooner or later every rider becomes familiar with exactly the kind of noise his particular mount creates and just what changes of note take place when he increases or decreases speed. If he happens to be observant and calculating he may even reach a point where he can approximately tell the speed at which he is traveling simply by the rhythm of the exhaust just as the engineers on the flyers do. Those men haven't any speed indicators in the cab to tell them just how fast they are getting over the ground but they become so familiar with the working of their machines that they can tell almost to a certainty just how fast the train is traveling simply 'by the feel of things' as I have heard one of them explain it.

"But it is really by the sound. An express locomotive is what you might term high-g geared. It has driving wheels six to seven feet in diameter and with a correspondingly long stroke. When the man in the cab has got the train moving well and has notched her up until the exhaust has been blurred into a steady roar, which is about the same thing as your advancing the spark and opening the throttle on a double-cylin-

der machine until the noise of both cylinders blends into an angry buzz, space is being licked up at a pretty good rate. Under such conditions the slightest alteration of running such as the use of the spark in the case of a motorcycle is instantly noticeable in the changed tone of the sustained note—if you are going still faster the note will ascend the scale and tend to become piercing in its intensity, if slower, it will become flatter and less angry so to speak.

"By far the worst time that I was ever fooled by a noise was an occasion on which I didn't get off to investigate it and the experience I gained in that instance was what made me susceptible to noises for some time thereafter. I'll tell you about it and you can draw your own moral.

"I had been riding my machine all season without giving it any more attention than the law demands, so that probably I was about due for some such experience, but a little watchfulness on my part would have avoided a substantial expense bill for repairs, nevertheless. As much as two or three days before the accident took place that cut my riding short for some time—oh no, it didn't disable me, but I only have one machine and had to quit until it was in running order again. As I was about to say, the machine had been developing a more or less ominous knock somewhere within its internal regions for fully two or three days before things came to a climax.

"It was something between a knock and a pound and it worried me more or less but as it only appeared spasmodically I only felt uneasy when it was in evidence and forgot all about it as soon as it disappeared again. That was what proved my undoing. I had been riding the machine pretty steadily throughout most of the day it happened and it was a hard day on a machine for the thermometer was a way up in the nineties. Pretty hard to keep anything cool under the circumstances.

"The knocking had been getting worse all the time and by that time had become continuous. There was no longer any escaping it for anyone on the road a hundred feet away could tell that there was something wrong with the internals of a machine that would make such an unholy row. I was only three miles from home and had, of course, come to the conclusion long before that a general overhauling would be necessary, and that I would have to forego the use of the machine, but there didn't appear to me to be any pressing necessity of shutting right down then and there.

"Things were bad enough as they were for both machine and myself were considerably out of sorts. For the past few miles I had been making miserable progress. First the engine would not develop anything like its usual output of power and it kept getting hotter than an inferno, but of course, I put that down to the low speed I was making and the exceedingly hot day. It was a belt driven machine and the belt

was slipping. That is, the motor would run weakly, not making much more than enough speed to keep steerage way on the machine and then every few minutes the motor would start to race like fury and the whole outfit would go slower than ever for the belt would refuse to transmit the power.

"The process was getting positively exasperating and the general discomfort I was suffering not only warped my judgment but made me cast discretion to the winds altogether. I determined I would ride that machine home or bust—the machine, of course—not myself, because I was on the verge of an explosion all along. There are nothing but dirt and sand roads out in that part of the country and they wind around and up and down something like a piece of bent wire thrown on a board. Everytime I came to a little rise or a sandy stretch, and there are plenty of them, it was leg power or walk, and to add to the pleasure of my generally weary and hungry condition, helping the machine along made me wringing wet with perspiration—even my shoes were full of it. That part of them that wasn't full of sand, for every now and again a sand stretch proved too much for our combined efforts and both motor and myself had to quit. Pushing something over a hundred pounds through loose shifting sand with the temperature above ninety and the prospect of a wetting imminent—I forgot to add that a thunderstorm had been brewing for the last hour or so that I had been making such painfully slow progress and threatened to let loose at any moment, is far from being conducive to calm and collected thought.

"I swore at the machine as a whole and at each of its individual components. I swore at the roads and blasphemed at the coming storm and last but not least, I swore at myself for being such an ass as to put up good money for such a contraption as a motor bicycle. I became generally profane—in short, I lost my temper utterly—a proceeding which I have always characterized as puerile on the part of a man who gives way in such a manner under ordinary circumstances. Losing your temper in anger against an inanimate thing usually results in damage to the thing.

"But I swore that I would ride that machine home even if it blew up and scattered itself over the road in the process and that was pretty much what it ended by doing. Consequently I let the motor race when it would and kicked savagely at the pedals when its efforts proved insufficient, which was all the time toward the end, and the end was not far off. I had turned a corner in the road and got through one sandy spot successfully though not without a great deal of exertion on my part and was full in the middle of another one of the worst sand holes in the district. I stuck right in the middle of it and all I could do in the way of pushing had no result except to cause my final downfall. I pushed in

desperation and made the driving wheel slide around in the sand just as the motor was about to gasp its last, and in doing so I brought the belt in a position where it slipped worst. Relieved of the load the motor started like a shot out of a gun and ran with a roar for probably a minute—it seemed like half an hour to me at the time. But the machine never budged, the motor not even putting a strain on the belt.

"I was so utterly out of sorts that like an ass I sat there and let it run although things soon began to get so red hot that I thought a move was expedient and started to raise out of the saddle to dismount when with a tearing, grinding crash, the end came somewhat facilitating my getting off, for I jumped and ran down the road for twenty-five or thirty feet. I wanted to get out of the danger zone and I staid out of it for some few minutes, sitting down on the roadside in utter disgust to think things over. Nothing happened, so after I was a bit rested I got up and went back to where the machine lay, hot and still smoking like an exploded shell.

"It didn't take more than one look to realize that its running days were over for some time to come at least. There was a great gash half way round the front end of the crankcase. If you have even seen aluminum broken under similar circumstances you can appreciate the description for nothing fits it so well as the word gash.

It looked just as if an attempt had been made to hack the case in two endwise with a blunt hatchet. The cut was about an inch wide and extended from within a few inches of where the crankcase is joined to the cylinder almost completely around to the under side, or about a half circle. While I was standing there taking it all in as if I were curiously viewing the result of someone else's carelessness a farm wagon came along going my way and I piled the wreck and myself into it. Of course the farmer was all sympathy and wanted to know how it happened. My explanation that 'she had run hot' seemed to satisfy him for he lapsed into silence after passing judgement to the effect that he supposed there was a sight to understand about them things and that they would go wrong sometimes even if you did know them."

"In the meantime I busied myself trying to figure out what had happened and in order to learn the exact extent of the damage I took off the remains of the crankcase. The strap on the big end of the connecting rod had parted and the stroke it had made after that happened had been the one on which it had attempted to slice the crankcase. But even after its momentum had been exhausted by cutting through the aluminum the flywheels had kept on revolving and every time they came around the crank pin gave the connecting rod a swat about at its middle. The last whack had brought things up standing so I found

them just in that position. The connecting rod was almost bow shaped, the strap end was bent almost flat and a piece had been cracked right out of the edge of the lower end of the piston where the rod had been forced up against it. Things were certainly in a pretty mess, I can tell you.

"And the cause of it all? Nothing more or less than the knocking that I had neglected. The bronze liners of the big end of the connecting rod had worn so that there was quite a little play and the longer the machine was run in that condition the worse that became. Things might not have come to such a pass even at that had it not been for lack of oil in the crankcase. It was almost bone dry when I opened it. The oil had been feeding alright but I suppose the conditions were such that every drop was used up as fast as it came in so that there wasn't more than enough to keep the piston from binding. The bearing heated so that the babbitt lining melted and that made it looser than ever and the play caused the strap bolt to part. Of course that was the end of it. It only goes to show what can be avoided by taking things in time for if the cause of that knock had been investigated when it first became evident probably a dollar or less would have covered the cost of repairs but as it was the bill was close to \$30. After that I used to imagine sounds and I was as worried over them as the man with imaginary ills, but I got over it."



For the 20th Year

the Gendron Star is pointing the way to bicycle worth. Its position is fixed and unvarying. Gendron riders know it; Gendron agents steadily have evidence of it in the shape of increasing sales of

Gendron Bicycles

We Make But One Grade and That the Best

Our bearings are our strongest point and have made the Gendron reputation as an easy running bicycle. No pains or expense is spared in either material or labor, inspection or finish. Two-piece hanger, drop-forged crown and cranks, perfectly pitched sprockets, one-inch seamless tubing with flush joints strongly reinforced, give some idea of the way Gendron bicycles are built. Equipment is first-class in every respect.

GENDRON WHEEL COMPANY, = = Toledo, Ohio

MAKING READY FOR ALCOHOL

How Uncle Sam is Arranging to Keep an Eye on its Production—Prophecy as to its Price.

J. W. Yerkes, United States Commissioner of Internal Revenue, has issued the departmental regulations controlling the making of denatured alcohol, its handling and uses. These regulations will render effective the law passed by Congress to take effect January 1, next, and provide for the withdrawal from bond, tax free, of domestic alcohol when it is rendered unfit for beverage or liquid medicinal usage by the admixture of suitable denaturing materials. The tax now amounts to about \$2 per wine gallon on alcohol at 180° proof, and the denatured article after January 1 will be free from that tax. Mr. Yerkes, speaking on the subject, said:

There will be two classes of denatured alcohol—first, that styled “completely denatured,” which will pass into general use for general consumption, and can be purchased at stores without limiting regulations as against the private consumer; and second, “especially denatured,” in which the material demanded by the needs of manufacturing interests will be regarded. As to this latter there are limitations confining it to the special manufacturing industry for which it is prepared.

This especial denatured alcohol will be kept under strict surveillance and governmental supervision.

For the completely denaturized article 10 parts of wood or ethyl alcohol and one-half part of benzine will be added to 100 parts of ethyl alcohol. In other words, to every 100 gallons of ethyl alcohol will be added 10 gallons of wood alcohol and one-half gallon of benzine.

The denaturing process will be accomplished on the distillery premises where the alcohol is produced, in special bonded warehouses designated and used alone for denaturing purposes and for the storage of denaturing materials. These buildings and the operation itself will be under closest governmental inspection and control.

While the price of the completely denatured product can not now be definitely stated, it is believed it will not be more than 35 cents a gallon. The price of the specially denatured alcohol will naturally vary according to the cost of denaturing ingredients selected to meet the necessities of the manufacturing industries. These special formulas will only be used where it is made perfectly apparent to the Department that the industrial interests involved can not use completely denaturized alcohol by reason of the presence of wood alcohol or benzine. In that case some other denaturing agent or agents, which will accomplish the purposes of destroying, as far

as possible, the potable or beverage qualities of the alcohol, and at the same time adapt the denatured article to the special ends desired, will be determined upon.

Oxygen Gas and its Effects.

Even the best intentioned of people are prone sometimes to jump at conclusions, and that without stopping to think, which not infrequently places them in a most ridiculous light. Thus an exchange, commenting on the practice of using oxygen in place of atmospheric air in the carburet-



NEW YORK BRANCH: 214-216 WEST 47TH ST.

ters of racing machines, makes the remark in all apparent sincerity: “Oxygen gives a complete chemical combustion, and consequently there is no back pressure on the exhaust stroke.” All of which sounds well if spoken rapidly. The fact remains, however, that even were complete combustion obtainable by the use of oxygen alone—which it probably is not—the back pressure during the exhaust stroke would be increased if anything, but as a matter of fact, in all probability would be little affected.

Complete combustion involves merely a change in the chemical constituency of the gases imprisoned in the cylinder, coupled with a great increase in volume due to the heat evolved. The more complete the combustion, the greater the increase in volume, and the greater the pressure maintained throughout the cycle. Hence, practically the same amount of residue is to be exhausted from the cylinders as when common air is used. So that the pressure during the exhaust stroke, which really is dependent on the design of the motor, is but little affected by the change.

The real value of oxygen is that it yields a more rapid and certain ignition and combustion, insuring the complete utilization of all the ingredients of the charge.

POROSITY IN RUBBER GOODS

Some Initial Causes of the Most Aggravating of all Tire Troubles and the Remedies Available.

The word “porous” has a most unpleasant ring in the ears of the rubber manufacturer, says Gemmi Zeitung. Porousness in manufactured rubber articles may be due to various causes, and frequently occasions the said goods being relegated to the waste heap. The particular cause of this defect is not always apparent at first sight, as it may be due to five or more things.

Firstly, then the raw rubber must be absolutely dry. Soft rubbers are more inclined to become porous than the harder sorts, and it is a good practice after drying the rubber, either in the drying chamber or in vacuo, to pass the rubber over hot rollers. Here it may be remarked that drying at a moderate heat in the drying chamber is generally to be preferred to drying in the vacuum apparatus, as the rubber then remains more nervy.

Secondly, any substitute used must above all be free from acid, which is often present in white substitutes. It is, therefore, safest to mix them with ten per cent. of chalk before use. Waste rubber is also liable to contain acid, and should be frequently washed with hot water.

Yet another cause may be that the mineral admixture is not completely dry. These additions to the rubber should always be dried before use, as they often take up moisture in transport or when stocked. Light mixings which have been passed through the rollers considerably, and have consequently become very soft, have a decided tendency to become porous, and should only be added to new mixing in about the proportion of 5—30.

There are two further factors which have an important bearing upon the question; careless workmanship will occasion trouble, and the steam supply should be dry, if too wet the external surface of the rubber is liable to become porous through the action of the excess of moisture; moulded goods, however, are less influenced thereby.

To Make a Tight Joint.

Occasionally one will come across a union which, owing to the impossibility of getting its component parts absolutely in line, or from a poorly ground face, will not stop leaking no matter how tightly it is set up. Where a replacement cannot be had the only remedy is to set up the joint with a little water-proof cement. Nothing is superior to red lead for this purpose but is has the disadvantage of setting permanently so as to make disconnecting the joint difficult. A cement made of litharge and grease or glycerine, or of graphite and grease will serve the purpose equally well.

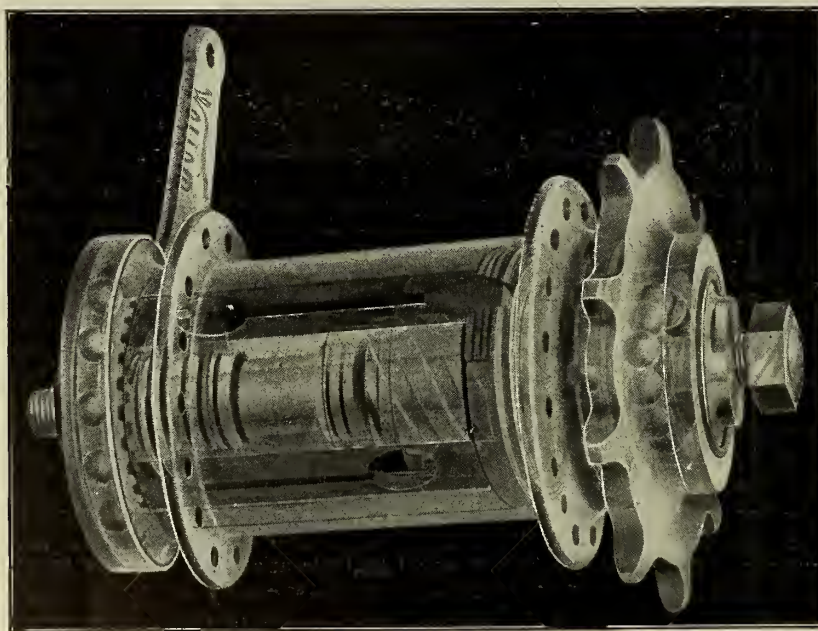
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for an answer

ORDER YOUR BICYCLES

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MORROW COASTER BRAKE



All manufacturers will supply them, although one may be found occasionally, who for convenience sake, may require a little urging. The Morrow adds so much to the pleasure and satisfaction of cycling, however, that insistence on the part of the dealer or rider is well worth while. Insist on having the Morrow and you'll get it.

ECLIPSE MACHINE CO.,

Elmira, N. Y.

THE LADY AND THE LAMP

She Finds it Cause for Interesting and Instructive Comment and Advice—Like-wise she Discusses Matches.

"I've been a-musing about cycle lamps," writes one of the sweet creates who cycles. "They're not an amusing subject, however, being apt to bring tragedies and misfortunes in their train, and to cause language—strong, terse, expressive English, as reviewers call it; the sort of language anyone can understand, even a school board infant. A cycle lamp is a very wicked thing indeed, only it is perhaps even worse to be without one. At this time of the year lighting-up time takes us unawares; a late spin, a lingering with a friend at tea, and before we are home again that fatal 'hour after sunset' has overtaken us, and we ride the rest of the way fearful of the man in blue. This is the modern version of the old, old tale of those who ride out of doors at midnight and meet spooks. One of the peculiarities of a cycle lamp is that you always have one except when it is wanted; and then either you find yourself lampless, or with one that is worse than useless. I never knew anything to wear out so badly for want of use as a cycle lamp. One takes it off the machine in the spring to fasten a basket on the handle bar, and in the autumn that lamp turns up off a shelf rusty, rattling, leaking, and apparently suffering from senile decay.

"Matches, too!" she continues, touching a subject not always dear to the feminine cyclists' heart. "When will someone invent a self-lighting lamp? We don't habitually smoke, so we don't always carry matches, and how useless a lamp is without the matches experience alone can tell. There are all sorts of ways of being without matches: having none at all isn't any worse than having the sort that won't light. That's the kind of experience which lamp lighting time brings. You feel so complacent at thinking that there is a nice pretty little box of matches in the wallet—one likes to have everything pretty for cycling. And those matches have been there for months, all ready for the lamp, you know! But who eveh would dream that the tire-some things had all got damp, and not one of them will light? Matches are best carried in the pocket, on account of this silly habit they have of being affected with a damp cycle shad, or a wetting on the roads. Another experience is to have just one or two matches left in the box, and a lamp that won't light. It takes a lot of matches to get a cycle lamp lighted, and there are nerve-trying moments of suspense on a windy evening when the lamp has to be coaxed into lighting with the very last match in one's possession. If that solitary match happens to blow out, or the head drops off when you strike it and flickers

out its brief existence on the dusty road, then the position is too terrible to contemplate. The moral of all this is—never go out without a box of matches, and be sure that the box is full.

"Never take out a cycle lamp with a new wick. Light it up before leaving home to make sure that it will light when required. New wicks and newly-trimmed lamps help to make up those tragedies of lighting-up time, to which I have alluded. I believe that Sarah Ann dips a new wick in vinegar before she puts it into a lamp, the the same treatment isn't a bad plan with the new wick of a cycle lamp at starting. Also, be sure that there is plenty of wick."

American Motorcyclists

are already well aware of the unrivalled comfort and quality of the world-famed

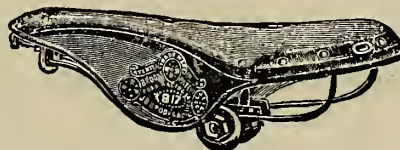
Imported Brooks Saddles

American Cyclists

now will have the opportunity to become acquainted. We have obtained control of the American sale of the full line of the Brooks saddles and to all riders able to appreciate the combination of

QUALITY, COMFORT STYLE AND DURABILITY

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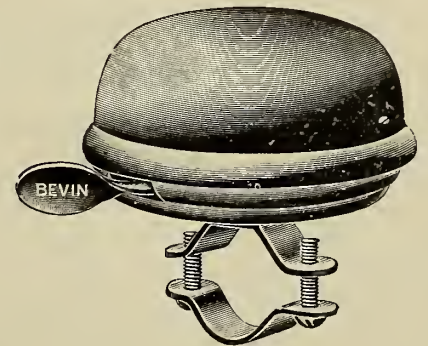
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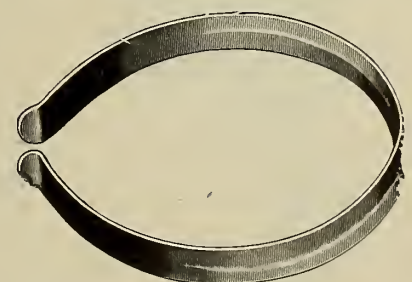
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Hudson

WHY?

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Why are "Hudson" bicycles the most popular? Is it because they are equipped with D & J hanger? But why are the D & J hangers so popular? They have never been so extensively advertised as other hangers and their cost has been so high that other manufacturers use them only when compelled to.

We are getting out a book entitled "Why" for fifty of the best answers to the above. We will send copy of the book entitled "Why" in connection with a souvenir that will come in handy.

1907 Hudson Bicycles

WILL LIST AS FOLLOWS:

Model "A" . \$50.00 Model "B" . \$40.00 Model "C" . \$30.00

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WE DISTRIBUTE TO AGENTS FROM THE FOLLOWING POINTS:

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Veeders for Motorcycles.



Veeder Trip Cyclometer for Motorcycles.

Price complete with Motorcycle Striker, \$2.50.

Veeder Trip Cyclometers are now made with a strengthened case, making them suitable for the more severe service of motorcycle use. A new motorcycle striker is also provided, which clamps securely to the spoke of a motorcycle wheel.

Motorcycles need regular lubricating periods—not based on time, but on **mileage**. In addition to the practical, mechanical reasons for having a Veeder on your motorcycle, there is the further reason that—

"It's Nice to Know
How Far You Go."



The New Veeder Motorcycle Striker.

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THE BICYCLING WORLD and MOTORCYCLE REVIEW

FOUNDED 1877.

Volume LIV.

New York, U. S. A., Saturday, October 27, 1906

No. 5

PIERCE TAKES UP MOTORCYCLES

Buffalo Manufacturers Finally Embrace the Power Driven Machine—Why Move is Fraught with Significance.

There will be a Pierce motor bicycle included in the Pierce Cycle Co.'s line for 1907.

As a sign of the times, it is unusually significant; in fact, there is but one other concern in the trade by whom a move of the sort would be of more portent. For while the Pierce people had not resolutely set themselves against motorcycles they had steadfastly refused to "warm up" over the subject or to display any marked evidence of increasing interest. That they have now "taken up" the power driven bicycle is, therefore, fraught with no little meaning.

The Pierce motor bicycle will employ the Thor engine and carburetter and other components and as the Buffalo manufacturers are great sticklers for quality and for the most painstaking workmanship, that their machine will command quick attention almost goes without the saying, as does the assumption that developments and "fine touches" on their own account are possible at all times.

Stock Market as a Barometer.

The stock market is said usually to best reflect the condition of an industry. By this token, the British trade is in even better shape than generally supposed is the case: Humber shares, which 12 months ago were quoted at 4 shillings, are now held at 21 shillings.

Duckworth Produces Roller Chain.

The Duckworth Chain & Mfg. Co., of Springfield, Mass., has added a roller chain to its line. It is of one-inch pitch, employs double rollers and is especially adapted for motorcycle use.

British Exports Still Booming.

Although the British exports of cycle parts during the month of September fell off, a big increase in the number of completed bicycles served to maintain the remarkable recovery in that branch of the industry.

For the month of September and for the nine months of the year, the record was as follows:

	Number.	Value. £	Parts. £	Total £
Month.....	6,305	34,268	44,206	78,474
9 months..	57,291	318,728	544,487	863,215

For the corresponding periods of 1905:

Month.....	4,318	27,723	49,870	77,593
3 months..	32,380	211,073	474,673	685,746

The average value of the bicycles exported this year is however lower than that of the previous season—£5 11s. 3d. as against £6 10s. 3.

In addition, Great Britain has exported motorcycles and parts to the value of £38,755 during the nine months.

Weston Moves up a Peg.

Since the firm itself moved to Detroit, J. C. Weston, for many years with Morgan & Wright, latterly as manager of their Detroit branch, has been moved up another peg. He is now its general representative—a sort of "envoy extraordinary and minister plenipotentiary" who has no special field but with the whole country as his field. He will go "wherever duty calls."

Hurck Becomes a Corporation.

The Hurck Cycle Co., St. Louis, Mo., has incorporated under the laws of that State as the Hurck Motor & Cycle Co., with \$5,000 capital. John Hurck and Alfred J. Carpenter, with 240 shares each; Maud Hurck and Mary H. Carpenter, with 10 shares each, are named as the incorporators.

The Retail Record.

Santa Ana, Cal.—J. A. Hankey, sold half interest to Walter Congdon; new style, Hankey & Congdon.

PROFIT BUT NO DIVIDEND

Canadian Combine Invests Earnings in its Business—Annual Statement Reports Increased Demand for Bicycles.

Although a profit is shown and no dividend will be paid, the annual statement of the Canada Cycle & Motor Co., which just has been issued, discloses more hopeful conditions than have existed since rough sailing was encountered soon after the chief cycle factories in the Dominion were merged under that title. Most of the report deals with progress made in the automobile department, for which land, new buildings and machinery have been acquired, but it makes plain also that the bicycle business across the border is again on the up grade. The big company has overcome its dream of world-conquering, having discontinued all save one of the branch houses it established abroad, and a considerable saving has, of course, resulted but the item "patents, trade marks, good will, etc.," still cuts a great figure in its assets.

That part of the report that deals with other than automobiles says:

"For the first time since the commencement of the decline of the bicycle business our sales in Canada show an increase over those of the previous year. While this increase has not been large, it has been fairly general throughout the whole of Canada, and denotes that there is an awakening in the demand.

"A year ago we had in operation in Australia branches at Sydney, Melbourne, Brisbane, and Adelaide. During the year we have disposed of our branch organizations in Sydney, Brisbane and Adelaide, and substituted separate selling agencies which handle our goods. These call for a very much smaller permanent investment on our

part, and our business there is consequently into a much safer compass.

"During the year our investment in Australia was reduced by practically \$100,000. Our branch organization has been retained at Melbourne in the colony of Victoria. It is the only one remaining in Australia.

"During the year the factory has been operated continuously, employing an average of about three hundred men. During the year our sales totalled \$904,207.29. After providing for all necessary contingencies in connection with the business, making suitable provision for bad and doubtful accounts, and providing for depreciation in machinery and plant, we show a profit on the year's trading operations of \$32,405.54. Your board have felt that the profits from the business are required for the increasing of our factory facilities to take care of the rapidly growing automobile business. On this account no dividend will be paid."

The financial statement is as follows:

A s s e t s :			
Cash	\$8,285.44		
Accounts and bills receivable	332,918.69		
Stocks and supplies	\$276,858.33	\$618,062.46	
Real estate and buildings	99,205.57		
Machinery, etc.	162,435.02	261,640.59	
Patents, trade marks, good will, etc.....		299,990.20	
		<u>\$1,179,693.25</u>	
L i a b i l i t i e s :			
Accounts and bills payable	\$327,077.47		
Contingent account.	20,210.24		
Capital stock	800,000.00		
Profit on year's business	32,405.54	\$1,179,693.25	

One Cause of Small Sparks.

To what an extent a poor ground return may be responsible for unsatisfactory service with a set of accumulators probably few drivers realize. Some of these ground return connections are fundamentally wrong originally, which means usually that they were stuck in the first place that was handy, regardless of what intervened between them and the place the current had to travel to. This, of course, refers particularly to the primary connections, the secondary current is of such high intensity that few things will stop it though the easier its progress is made the less strain will be imposed on the coil. But increasing the resistance of the primary circuit by placing the ground return so as to include lubricated joints or similar obstructions in the path of the current do not mean an increased consumption of current, as the greater the resistance the smaller the amount of current that can pass. Consequently, the smaller the spark and the battery or coil is blamed for a sin for which it is not responsible.

SUBSTITUTES FOR GASOLENE

Man with Possible Famine in Mind Delves into Subject—His Experiments with "Dust Fuels."

"Gasolene is so much superior to all other liquid fuels for internal combustion engines that even at present prices it will not give place to any other liquid fuel with which we are at present acquainted. But the price will in all probability be still further increased, and it is not a fuel which can be found almost everywhere, like coal. Most European countries must import it, and it is conceivable that our supply might be arbitrarily cut off," says a foreigner in discussing the possibility of a gasolene fuel famine and the substitutes available.

"The only other fuel hitherto proposed as a substitute is alcohol, which, of course, can be made from many vegetable materials grown at home. It is not quite so good a fuel as gasolene, it having a higher evaporating temperature and less intrinsic energy; still it would be a good substitute for gasolene.

"Alcohol is not a natural product, and just what it could be sold for, even when the duty is removed, is not easily ascertained. The process of manufacture is far more intricate and expensive than that of the simple distillation of gasolene, so that the price of the latter under present conditions, and power for power given off, makes it still likely to be considerably cheaper than alcohol.

"In view of the situation, it may be of interest to consider the possibility of other fuels. 'Necessity is the mother of invention' is very true, and the necessity of a gasolene substitute will no doubt in time bring it forth. During an experimental study of the subject I tested the possibilities of solid fuels in a state of fine pulverization—they are commonly called dust fuels.

"Coal dust has been proposed often as a fuel in internal combustion engines, but coal dust contains incombustible matter which forms ashes, and that effectually puts an end to all experiments with that fuel. That fine particles of combustible materials floating in air can form a highly explosive mixture has long been known. In dry coal mines, violent explosions have occurred due to the fine dust of the coal pulverized in the roads and floating in the air. In all dry mines the dust has to be continually laid by water spraying to prevent explosions.

"The field of research in this subject is very wide, and presents several problems. The first is to ascertain what is the best material for the purpose. Nearly all combustible materials can be finely pulverized,

but like coal, most of them leave ashes behind them after combustion, and very little of that residue is permissible.

"The material must be a natural product, or one which requires only some simple process of preparation from a natural product, which must be plentiful and cheap. A substance of low specific gravity makes the best explosive mixture when in dust form. Coal, however, if fine enough in dust form, floats freely for long periods in air. Again, the dust in bulk form should not be explosive; for instance, gunpowder dust could be used, but the danger of explosion is too evident—it is an explosive mixture itself without pulverization or air mixture.

"The next division of the research is concerned with the mechanical problems, the carburetter, and the feeding of the fuel and its regulation to provide a proper mixture. The mechanical problems do not present much difficulty with some fuels, while with others the difficulties are greater. For instance, finely powdered resin forms a highly explosive and powerful mixture with air, but it is difficult to keep it from solidifying in bulk, especially in warm weather. Hard crystalline coal tar pitch is much the same.

"The most difficult problem is to thoroughly diffuse the dust uniformly throughout the mixture, but high compression can be used, much higher than with gasolene, so that the mixture becomes fairly well incorporated before ignition.

"A natural dust which requires little preparation, is not affected by heat when in bulk, is safe, clean, odorless, and cheap, is the product of a moss-like plant, the seed of the *Lycopodium Claratum*, commonly called *Lycopodium*, a fine yellow powder.

"The highly combustible nature of this powder and its safety was early discovered by the theatrical chemical man, who employed it to produce artificial lightning in thunderstorm scenes. For this purpose a small quantity of the powder is placed in a tube (about a tablespoonful in a tube about $\frac{3}{8}$ -inch or $\frac{1}{2}$ -inch bore); the powder is then by a puff of breath blown across the top of a spirit lamp or other flame, its instantaneous combustion producing a vivid flash of light some feet in length. This simple experiment proves that a dust and air mixture is as highly inflammable as a vapor and air mixture. *Lycopodium* contains, besides the ordinary carbo-hydrates of plants in general, some oils which are easily ignited, and it is of extremely low specific gravity.

"It is a natural growing material which no doubt could be cultivated on a large scale. There are other natural materials, equally good as explosives when mixed with air, and perhaps better otherwise.

"As to the engines for dust fuels it is not likely that any change would be required further than a new type of carburetter capable of dealing with a fine powder. It has been proved that the mixture can be made and used practically."

GETTING RID OF THE VAPOR

Foot Pump a Ready Means of Removing it from Tanks and Ventilation a Safeguard for Shops.

To those dealers and repairmen who have been the victims of an erroneous impression that their places might become "full of fumes" from the storage of motorcycles with empty tanks and feared that their establishments would literally burst into flames upon the striking of a match, the simple explanation of the moving cause of many of the alleged mysteries in the actions of gasoline vapor that have given rise to this exaggerated dread of the consequences, and which appeared in last week's *Bicycling World*, threw a flood of light on the subject and came as a relief.

Gasoline is decidedly a dangerous inflammable fluid and its vapor in combination with the proper proportions of air is likewise highly explosive. This is something that should not be lost sight of, but there is as little actual ground for the unreasoning fear of it that possesses the average repairman as there is to suppose that the fate of Marryatt's old woman who was so steeped in rum that she took fire by spontaneous combustion and burned up will overtake every heavy indulger.

As a liquid, gasoline is extremely volatile—that is, it will evaporate very rapidly except at a low temperature, such for instance as when the thermometer drops well below the freezing point. If exposed to the open air it will quickly pass off in vapor until the last visible trace of it has disappeared. Consequently, if an open pan of it were placed in a room the latter would soon be filled with gasoline vapor, or "fumes." But if the air is in motion it will carry off these fumes about as quickly as they are generated, hence, opening the windows so that a draft will be created proves an efficient safeguard against explosion.

In the case of the repairman's establishment, a number of machines with tanks partly filled with gasoline and with the stoppers removed, would be equivalent to the open pan referred to. They would in time cause the place to fill with the vapor and the latter would combine with the air to form an explosive mixture unless there was sufficient ventilation. But the same number of machines with absolutely empty tanks could not bring about this result for the reasons given previously and uncorked partly full tanks are not the rule.

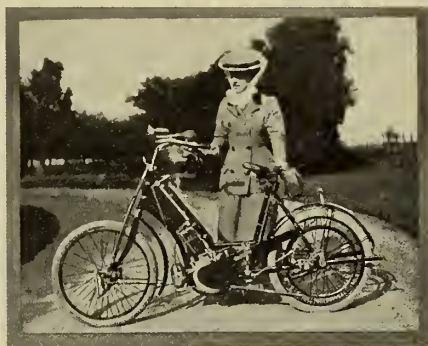
Reverting to the subject of tanks, "It's all very well for you to recommend the use of compressed air for clearing out all traces of vapor," said a repairman who approached the subject, "but where are we little fellows to get compressed air?"

"No. That's a fact. It never did strike me that an ordinary foot pump could be used with the aid of a few rubber washers

or something of that kind," was his surprised reply to this suggestion. "I'll try it on the next tank job I get and I think I can go it a whole lot better by taking an old tank stopper and making a joint out of it for the tube of the pump. That ought to screw on any tank opening—that is, if they are all the same. I'll try it on and let you know."

Motor Bicycle for Womankind.

Naturally enough the greatest hindrance to the adoption of the motor bicycle by ladies is the fact that makers do not offer drop frame machines. Were they to do so, it is not at all unlikely that the immediate result would be a good demand for them by women of all ages and conditions. As



it is, once a woman's interest is aroused to the point of willingness to try a machine on the road, or even to purchase one, she must either content herself with riding a diamond frame mount, or wait some little time while one is being made to order. Those who have made the attempt, however, seem fully as enthusiastic as their male companions.

One of the most prominent lady motorcyclists in England, is Mrs. Mary E. Kennard, who has been riding several years, and has just become the proud possessor of her sixth mount, which is here illustrated. It is engined with a three horsepower motor, mounted well forward under the lower frame tube, and securely attached to it. Magneto ignition is fitted, double grip control, and a little contrivance of Mrs. Kennard's own invention, which consists of a small tube leading from the gasoline tank to the cap over the automatic inlet valve, which is used in priming the cylinder when starting. Spring forks, a spring saddle and a spring seat post are features which she considers very important, and also—still another of her ideas—there is a large amount of clearance over the front wheel, as a matter of precaution.

Speaking of the sport, and her appreciation of it, she says: "If ladies knew the fascination of the sport of motorcycling they would be less inclined to stand aloof. Few things equal it on a fine day, and to my mind, it is far more exhilarating, dangerous, and exciting, than car driving. Besides, everybody drives cars, nowadays. I have had five motor bicycles, and this is my sixth."

EARNINGS OF ENGLISH MAKERS

Parts Pay a Profit of 41 Per Cent. and One Bicycle Manufacturer Doubles His Business.

Following the reports of some of the British cycle manufacturers which were referred to in these columns a fortnight since others have appeared which show the industry has entirely recovered from the depression of two years ago, now having more than regained its former state of flourishing prosperity. And probably this is more apparent from the report of one of the most prominent cycle parts making concerns than it is in the showing of the makers themselves.

Take the Eadie Mfg. Co. Ltd., of Redditch, as an instance, and it is only necessary to state that the profits for the year ending July 1st last are equivalent to a dividend of 41 per cent. on its ordinary capital, which is more than seven-eighths of its total capital of slightly over \$800,000. As compared with the showing of the same firm two years previous the gross profits have more than doubled, now totaling about \$330,000. This has enabled it to declare a preferred dividend of 7 per cent, an ordinary dividend of 10 per cent. in addition to a bonus of 15 per cent. on the ordinary shares, beside placing about \$125,000 to the credit of the reserve fund.

If that were not sufficient the report of the Enfield Cycle Co. Ltd., also of Redditch, shows a greater profit than any year since 1898, and more than double that of any year between '98 and 1903. The amount for the past year was \$142,000 as compared with \$100,000 for 1905 and \$90,000 for 1904. As the concern is not over-capitalized it has been enabled to maintain its dividends even through the off years, but the past year's net profits are sufficient to pay the dividends on its preference shares for 10 years to come besides representing earnings of 17 per cent. on its ordinary shares.

Crack that Causes Loss of Power.

One of the causes of lost power that is very hard to locate until it has become aggravated to such an extent that it makes its presence apparent of its own accord is a broken spark plug porcelain. Even though the cracks in this be so slight as to escape anything but a close inspection they are frequently sufficient to lower the degree of compression to a point which causes a marked falling off in the speed of the machine. And at times the break is such as to merely open a gap in the walls of the porcelain shell without causing the latter to collapse so that taking hold of it does not reveal the defect. The only certain test is to place the hand over the plug while running so as to surround it as much as possible. The hot gases being discharged through it may be plainly felt.

A Demonstration of Our Claims of Durability of the National

A few days ago we received from one of our old customers a National, which he had sold in 1896, and which had been in continuous service ever since.

He sent it to us as a sample of National durability.

After it had been ridden over 17,000 miles, its owner decided to try for the 300 and 400 mile records, and succeeded in breaking both of them.

This bicycle has been ridden over 50,000 miles and contains the bearings which were sent out in it originally.

The cups and cones to-day are as bright and free from blemish as when new.

It's good for another 50,000 miles, but we will keep it as tangible evidence of results from using good materials.

There are thousands of Nationals just like this one.

Nationals to-day are made from the same quality of materials.

We have always been believers in good bicycles, and as every machine we make carries our trade mark, we cannot afford to cheapen their construction.

Are YOU Riding or Selling a Bicycle of the Sort?

NATIONAL CYCLE MANUFACTURING COMPANY
BAY CITY, MICH., U. S. A.

**Comfort
Resiliency**

and 45 per cent. Saving in Tire Maintenance are the essentials
of the ever reliable

Fisk Bicycle or Motorcycle Tires

Like all Fisk products, they have a Quality and a Construction that is exclusive—real merit—through and through—that makes their distinct superiority apparent.

WILL OUT-LAST TWO OR THREE OF OTHER MAKES

THE FISK RUBBER CO., Chicopee Falls, Mass.

THE BICYCLING WORLD and MOTORCYCLE REVIEW

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Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should
Address us at P. O. Box 649.

NEW YORK, (OCTOBER 27, 1906.

"Kindly change the address of my Bicycling World from Valparaiso, Ind., to Hartford, Conn. When this letter reaches you, it will be too late for this week's issue, so send me a copy to the new address. As it is the only means of keeping in touch with the bicycle and motorcycle world, I would not like to miss a single number."—G. A. Taplin.

The Sort of Criticism That Counts.

Said a certain manufacturer recently, one whose name is no stranger to the cycle industry, "It is pleasant to be told how good is my product but I prefer to learn wherein it is poor. That's what really helps me."

The sort of criticism that points out the flaws in a product, reveals the little weaknesses which develop only at the hands of the user and under the unaccountable conditions of every day service away from expert attention; the sort of advice that is prompted by a desire to aid the maker to better things; the sort of help that one friend gives to another, that sort of criticism goes a long way toward enabling the maker to meet a demand which otherwise he must guess at, or ascertain by abstruse reasoning. It puts him in touch with the

user in a way that no amount of flattery, no baskets-full of kicks, and no arms-full of other makers' catalogues can do. It places him in a position to see how near or how far he is from satisfying his customers, and what little touch is needed here or there to complete the success of his efforts.

Indeed, so strong was his feelings on the matter that the maker in question said he preferred meeting a good critic for five minutes to spending an hour in the company of a flatterer who had nothing but words of praise for his wares. "A friend who has nothing but words of praise for your goods," he said, "gives you no clue as to whether you are hitting the mark or whether he merely wants to stand in with you for his own benefit." And somehow, the impression sinks home that he is about right. That sort of criticism, vulgarly known as "knocking," of course, is of no avail; it is merely an outlet for spleen. But real criticism always is helpful.

The hours and days and even weeks of ceaseless, patient toil required for the evolution of some little salable object, swollen into weeks and months in the case of a complete machine, represents but the result of the expert attention of one or two men who, no matter who they may be, are yet subject to certain notions of their own, certain prejudices due to their habit of thought, certain bias, due to a desire to be original, some pet idea. The real pithy must cap the climax of such lot from the view point of the maker, but from that of the user, who sees through clear daylight, and judges only by merit and not by way of a few notions and a drawing board.

His is the clear wisdom of good works—or ill—and not that of theory. And no matter how valuable theories may be to those who love and nourish them as children of their hearts, their foundation soil is fact, their turning point is fact, and their results breed facts, in success or failure, which in their structure, stone upon stone, can strengthen or overthrow the most beautiful of all the mind's fabrics. For, after all, they are but the substructure and the towering results to which the schemings and mental anguish play but a secondary part.

Classification of Motorcycles.

While it is too late to be of effect this year, it will be well for promoters and others interested in the advancement of motorcycle racing to keep in mind for fu-

ture use the idea of class races. As a means of affording close and exciting sport and of preventing the runaways that are too generally the rule, it appears to hold promise. It also should be the means of inducing larger fields of starters and of permitting greater intelligence in allotting handicaps.

It has been abundantly demonstrated that motors off the same mold differ as greatly as do sons or horses of the same parents. It requires few contests to prove which are possessed of greater power and once this is proven and the few "fast machines" in each particular neighborhood become known, there follows a waning of enthusiasm and a scarcity of competitors. When men grow weary of racing only to be beaten or of knowing they are beaten before they start, they hold aloof and sameness pervades the sport. The efforts at handicapping that have been made to relieve this order of things have been few and unsatisfactory. About the only successful handicap motorcycle races that have been run were two events for which the starts were allotted by Chairman Douglas of the F. A. M. Competition Committee, and he admits they were allotted on past performances rather than by slavish adherence to rated horsepower.

It seems, therefore, that to promote a healthier state of affairs and to encourage men to compete, classification of some sort is desirable and it is as plain that the only classification worth while is that which has to do with actual performance rather than horsepower. Let race promoters program events for machines that have not done better than 1:25, 1:30, 1:35 or 1:40 or whatever they choose and we fancy that it will not be long before many of the vexed questions that now act as deterrants will dissolve in thin air and more wholesome and more exciting sport ensue.

The official entry blank of the F. A. M. requires that the number of the motor employed shall be inserted in every instance and this will permit of an accurate record and compilation that will serve all purposes.

It is unfortunate that the idea of class racing did not occur sooner. It is too promising to go to waste and should be noted for future use. In passing, it may serve the riders themselves to good purposes. For it is not a great stretch of imagination to see that a used motor bicycle with an authenticated record of, say, 1:30, should be able to command a

better price than one with a record of 10, 20 or 30 seconds slower. Records of the sort influence the price of horseflesh. Why not of motors?

How Cycling Sharpens Faculties.

One of the most remarkable features of cycling whether with the muscle or motor driven machine, is the way in which it tends to sharpen all the faculties, yet in so subtle a manner that the training is hardly realized by the rider and the developed senses are exercised in a sub-conscious fashion and without fatigue. Thus when first the learner attempts to mount and ride, all his attention is required in the serious business of retaining his balance. A little after this period has passed, he devotes his mentality to the hardly less difficult task of steering clear of the thousand and two objects which persist in bobbing up before him in the road, and seemingly wobbling about with the sole object of disturbing his peace of mind and his equilibrium at one and the same time.

Later, however, when this novice has passed and he has fully mastered the art of cycling, he discovers much to his surprise that instead of being an all-absorbing occupation, riding in reality affords him ample opportunity to study the scenery, to ruminate on the beauties of nature, to converse, and even to perform sundry little feats of legerdemain in the way of adjusting his clothing, donning his gloves, and even, if he be so inclined, lighting a cigarette. In fine, the effort of riding has become wholly a secondary function and requires no more concentration of mind, no more thought than does walking, or even sitting down, for that matter.

Yet with this ability to ride unconsciously, as it were, comes also a faculty of observing the action of the machine in all its little details, and that unwittingly, which is as universal with riders as it is remarkable. Thus, for instance, the sudden tightening of one of the ball races in a wheel giving a hardly perceptible increase in the power required to propel the mount is at once noticed by an experienced rider, even though at the time his thoughts may be far away. Similarly a bit of twig twisted into the frame and rattling against the spokes, giving absolutely no increase in the load on the pedals, and only revealing itself in a sharp rasping noise, is noticed at once. With the motorcyclist, it is the same. A little fault in the motor, a single explosion

missed out of perhaps six or seven hundred occurring in a minute, some undue weakness manifesting itself only when the road becomes graded, these, and even more finely concealed signals of distress are observed as though they had been heralded with the blast of a horn. Yet until they have come the rider has not been conscious of watching for them. Thus while he is performing the evolutions necessary to maintaining his balance and guiding the mount, he is conscious only of bending his thoughts on whatever may be uppermost in his mind.

The habits of observation which thus come upon the seasoned rider, however, sometimes lead him into remarkable errors of judgment. Thus, sounds entirely foreign to the mount are frequently diagnosed as coming from beneath him, and occasionally even so slight a thing as an echo may cause him to dismount in sudden alarm. In this way one rider tells how he jumped off at the risk of his neck when travelling at a good rate of speed, brought to a halt by a repeated clicking sound which was so loud as to promise nothing less than a ruined cylinder. Eventually it turned out that a series of fence posts which he was riding close to along the side path, turned back the sound of his motor and developed the repeated notes of alarm. Usually, however, the senses are unfailing in their discernment of trouble signs, and give ample warning of danger either from within or without.

Patterning after those wiseacres of the "do-it-at-home" column in the monthly periodicals who show on paper how any old dry goods box can be converted into the "loveliest" chiffonier or wardrobe or what not, at a nominal expenditure of sixty-nine cents for tacks and trimmings, a motorcyclist arises to remark that he has found marmalade an excellent tightener for leaky tire valves. It is hardly necessary to add that he hails from the "tight little isle" where flourishes the substance he recommends. He says: The little rubber coned plunger of the tire valve often leaks slightly and necessitates pumping the tire every day or two. I have found by smearing this with marmalade it at once becomes air-tight and remains so." Perhaps currant or raspberry jam, whether the real fruit or synthetic variety, will be found "just as good" if this English breakfast favorite be not at hand.

To Compete for President's Cup.

Due to the gift of a handsome cup by President C. W. Nason, some keen spirit should be added to the affairs of New York Motorcycle Club. The trophy is to be known as the "President's Cup" and is to be competed for twice each year by two teams of five members each, to be chosen by lot by the captain and the lieutenant of the club and to be styled, respectively, "Captain's team" and "Lieutenant's team." The competition will take the form of a 50 miles non-stop, speed judgment contest, points to count; the details are now being worked out. The names of the members of the winning team will be inscribed on the cup and each be awarded one of the club's silver bars. The first contest probably will occur Nov. 11th over a Bronx course.

Hintze to Tempt the Fates.

Herman H. Hintze, of the Tiger Wheelmen, New York City, is going to court arrest, accident and a few other probabilities on Sunday, November 3rd, by attempting to lower the 100-mile motorpaced road record made some years ago by Charles Mock. It stands at 4 hours 27 minutes. Hintze will ride over a twenty-five mile course from Valley Stream, to Jericho, to Springfield and thence to Valley Stream. A few years ago when motorpacing on the road was in danger of becoming epidemic it finally was stopped at the solicitation of officials of the Federation of American Motorcyclists, and it will be regrettable if this style of law breaking is allowed to become "fashionable" again.

Leuly and Early Pile up Mileage.

Emil Leuly and Harry Early, of the New Jersey division of the Century Road Club of America, have just returned from a long trip a-wheel. They started from Jersey City on October 11th and returned last Saturday, and during the ten days that they rode covered 1,042 miles, including six centuries. The trip was merely one of pleasure and these sturdy riders visited most of the New England States, during which time they stopped over in Boston for four days, and which vicinity they cobwebbed by short and interesting tours. Fred Perreault, the State Centurion of Massachusetts, accompanied them on many of the trips and proved a valuable guide.

Rain Postpones Providence Meet.

Rain last Sunday caused the postponement of the Providence Motorcycle Club's race meet on the Hillsgrove track. President Betts, Vice-President Hastings and Chairman Douglas, of the F. A. M., were of the number who journeyed to the Rhode Island city only to be disappointed. The entry list for the meet is a record-breaker, 23 men being entered for the 10 miles handicap alone.

TEAMS FOR THE SIX-DAY WHIRL

Most of the Pairs Already Arranged—Some Surprising Combinations Among Them
"Classy" Foreigners Coming.

This year's, the fourteenth annual, six-day bicycle race, has been definitely slated for the week of December 10th to 15th inclusive, starting shortly after midnight, Sunday, December 9th. As usual, a card of sprint and paced races will be held on the Saturday night preceding. This much was confided to the Bicycling World man yesterday in an attempted interview with P. T. Powers, the promoter of the big race. Although Mr. Powers would not divulge the names of the teams that have been selected it was learned who some of them will be.

A cable has been sent to Paris saying that the foreign teams will be selected from these candidates: Walter Rutt, Germany; Johann Stol, Holland; Carlos Vanoni, Italy; Petit Breton, Louis Darragon and the Georget brothers, of France. The Georget brothers, who recently won the six-day race at Toulouse, will ride as a team, and Walter Rutt, the premier German sprinter, will ride with Floyd McFarland, of San Jose, Cal. The possibility is that Breton and Darragon will go together and Stol and Vanoni. Vanderstuyft may be selected, but it is doubtful.

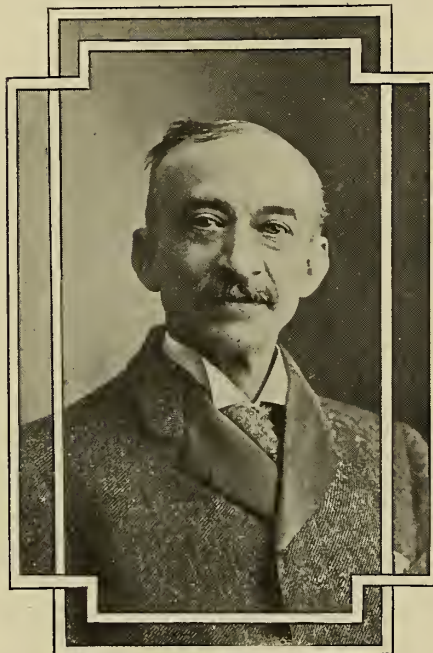
Although Fogler, in his blustering way, stoutly maintains that he has not signed and has no intention of riding, he and Root, last year's winners, will be again seen as a team, and Hollister and Hopper, the clever little riders from Salt Lake City, will be paired. Ernest A. Pye and A. J. Clarke, the two riders from Australia, who did very well at Salt Lake this season, have signed and will represent the Land of the Kangaroo. Floyd Krebs and Ed. Rupprecht, of Newark, have been placed together and, of course, the Bedells—John and Menus—will be the Long Island representatives, although they have not lived on Long Island for several years. Robert J. Walthour, who caused the strike two years ago, will ride with Hugh MacLean, and this team does not seem as strong as it would with Matt Downey as the Atlantan's partner, as was suggested. Pat Logan and "Piggy" Moran will draw all the Hibernians in Greater New York to the Garden. There is some talk of A. W. MacDonald, of Boston, riding with Urban MacDonald, the New York amateur and also Charles Jacobs teaming with Alfred Ashurst, but these teams are not a certainty. Neither is the combination of J. B. Coffey and Elmer J. Collins, which also has been suggested.

When asked how many teams will start in this year's grind, Mr. Powers stated that

he had fifteen in mind but that they would be better matched than was the case last year. Eighteen teams started last year but several were eliminated before the first day was finished. From the above prospectus it would appear that the strongest pair are Rutt-McFarland, Root-Fogler, Hollister-Hopper and Pye-Clark.

Batchelder Resigns, Adeë Succeeds.

A. G. Batchelder, president of the National Cycling Association and for so many years its backbone, has placed his resignation in the hands of Chairman Kelsey of



DANIEL M. ADEE

the Board of Control. Batchelder had contemplated the step for a year or more but was induced to hold on until he was able to find the man whom he believed worthy of carrying on the work. And he found a good one—none other than Daniel M. Adeë, president of the Century Road Club Association, and a genuine cyclist to the very tips of each of his fingers, and withal a clean and broad-gauged sportsman to the core.

Adeë fought shy of the position for a long while but the pressure brought to bear finally proved effective. He has not yet been formally elected but Chairman Kelsey is going through the motions of taking the necessary mail vote, which is all that is required to induct the rare old veteran into office.

Adeë is near to the three-score mark but no man of half his years is keener or more active or more enthusiastic. He credits the bicycle with having saved his life and his love of it is in corresponding measure. He is full of vitality and if he is not hampered in his new office, there is no room for doubting that he will do much to infuse new life into the N. C. A.

CHICAGO TRIES PROF. CALLENDER

Employs His Formula in its First Motorcycle Hill-Climb—Blankenheim's Weight Plus Speed Wins.

Fourteen motorcyclists scaled Perry Hill in Algonquin, Ill., on Saturday last, 20th inst. Charles Van Sickle went up in the fastest time but the fastest man did not win. That honor went to Charles Blankenheim.

The occasion was the Chicago Motorcycle Club's open hill-climbing contest and the reason why the fastest man did not win was because the event was decided according to Callendar's formula, i. e., cylinder capacity in cubic inches multiplied by the time and the result divided by the combined weight of man and machine.

Perry Hill is not much of a "mound" but as Chicago is at flat as a floor it was the best one within reach, and at that it is three hours by rail distant from Chicago. It is exactly 465 feet long, with a fairly steep grade and a "ticklish" turn.

The competitors were given a flying start, Sporleder (3 horsepower Harley-Davidson) being the first away. He made the flight in 26½ seconds and the time stood until Van Sickle (2¼ horsepower Indian) who started seventh, made his effort. He went up in 26 seconds flat. Blankenheim (2¼ horsepower Torpedo) followed him in 29 seconds but neither Blankenheim or any of the others was able to displace the Van Sickle figures. When the mathematics were resorted to, however, the greater weight of Blankenheim turned the scales in his favor and gave him the cup that constituted the award. The summary:

Rider.	Machine.	Time.	Score.
C. Blankenheim, Torpedo.....		29	1.65
C. W. Van Sickle, Indian.....		26	1.78
E. Landgraf, Landgraf.....		36½	2.12
C. W. Rogers, Thor.....		33	2.14
F. MacSchellinger, Yale-California		39	2.21
R. Sporleder, Harley-Davidson...		26½	2.25
G. W. Lyons, Harley-Davidson...		29½	2.42
W. Davidson, Harley-Davidson...		28¼	2.49
R. J. Gits, Ray.....		36	2.57
A. J. McCollum, Armac.....		29½	2.59
F. M. Dolbey, Marsh.....		29	3.10
J. H. Turner, Landgraf.....		41	3.52
C. H. Lang, Harley-Davidson...		31¼	3.59
F. Rittis, Marsh.....		37½	4.00

What Killed Free Bicycle Cleaning.

At a recent meeting of a foreign charities organization, it was proposed that as a means of furnishing labor to the worthy unemployed and at the same time accomplishing a useful purpose, stations be established where bicycles could be cleaned free of cost to the owner. Unfortunately for the success of the estimable project, however, a waggish member moved to amend by adding the words, "and baby carriages," and the motion was promptly voted down by the batchelor contingent.

PREPARING FOR THE SIX DAYS

Or how Proud Ambition is Thwarted—One of the Sidelights that is Unseen by the Great Green Public.

A COMEDY IN ONE ACT.
Now Being Played Daily.

(Dramatis Personæ)

P. T. Bowers—Promoter of six-day races and other things.
J. Frank Galvanized—His secretary.
Otto J. Slye—Anxious to ride.
Carrolus Shlusser—Also anxious to ride.

Scene I.

(Ante-room of Bowers' office in St. Tall building, 220 Broadway, New York. From the inside office come sounds of animated conversation. A score of tough-looking men who sit around on chairs, typewriter tops and tables awaiting their turns to interview Bowers, the Great Mogul. Half an hour passes and the conversation continues. The waiting men fidget and look at the wall clock. Presently enters J. Frank Galvanized, attired in patent leather shoes, gray spats, blue serge suit, trousers turned up at the bottom, a passionate vest and a large near-diamond trying hard to sparkle from the background of red cravat. He smiles, rubs his hands importantly and, looking at the card in his hand, approaches Slye and Shlusser, who have been sitting on a trunk.)

J. Frank Galvanized—Mr. Slye and Mr. Shlusser? Well, Mr. Bowers will see you now. This way.

(Exit Slye and Shlusser).

Galvanized—Gentlemen, have a little patience, Mr. Bowers will see you all in turn. You know he is very busy now on account of the six-day race.

Scene II.

(Interior of Bowers' office. Bowers sits at desk, coat off, sleeves rolled up. The desk is littered with a conglomeration of papers. Pictures of sporting celebrities, baseball teams and pennants adorn the walls. Bowers sighs and wipes his perspiring face as the door opens. Enter Slye and Shlusser).

Slye—

Shlusser—(simultaneously)—Good morning, Mr. Bowers.

Bowers—Well?

Shlusser—Well, Mr. Bowers, we would like to ride in the six-day race. We have been riding pretty good and think with a little training we could do as well as any of them.

Slye—That's right, all right. That's the goods.

Bowers—Humph! You are working now, aren't you boys?

Slye—

Shlusser—(Together) Yes.

Bowers—I don't think it would pay you to give up your jobs.

Shlusser—Oh, we wouldn't think of riding

unless we were sure of getting paid for it—expenses and all that, you know.

Bowers—Why, I couldn't think of doing that.

Slye—

Shlusser—(in one breath)—O-o-o-h-h-h!

Bowers—Good morning, boys, come in again when I am not busy.

Slye—

Shlusser—(Indignantly)—What the h—d'y'e think of that?

(Exit Slye and Shlusser, slamming the door after them).

Scene III.

(In hallway of twenty-first floor, outside Bowers' office. Slye and Shlusser stand in front of elevator cage waiting for car. They are greatly excited and indignation is pictured on their countenances. They try to make themselves understood but their conversation sounds like the second chapter of the Jungle).

Slye—??—x-y-z—!!—damn—??—?!?! pot-bellied!!!! fat-head!!!! stiff!!!!

Shlusser—Hell!—??—same ditto!!!—xz!!! brute!!!—???—x-z-z—!!!!

Elevator Man—Going down!

(Slye and Shlusser enter elevator).

Curtain.

Walthour Coming Home for Six-Day.

Robert J. Walthour, at present in Europe, will sail for America on the 18th of next month, and will immediately begin training in preparation for the annual six-day race. Although it has not been officially announced it is generally understood that Walthour and Hugh MacLean, of Boston, will form an alliance. On account of being the cause of a strike during the race in 1904, the Atlanta rider was not allowed to ride last year, but as that disagreeable episode has almost been forgotten, Walthour's return will be hailed with delight by the "fans" who idolized him several years ago.

Where Railroads Store Bicycles.

In England, the practice of the railroad companies of affording station accommodations for bicycles by the day, week or month, has grown amazingly during the last few years. At present, it is said that fully one-third of the London stations are fitted with such arrangements, and the likelihood that an extension of the system to all lines will be made within a short time is strong. The charges range from \$1.87 per month down to eight cents a day.

To Open Door to All Tourists.

If the courts sanction the change, the Cyclists Touring Club shortly will drop "Cyclists" from its title and become "Touring Club" pure and simple and the doors be thrown open to pedestrians, motorists, horsemen and other road users. The proposed change was discussed at a largely attended and animated meeting in London and was carried by a vote of 173 to 156.

CYCLES AS MEANS OF SOUL SAVING

How they are Employed by the Salvation Army Branch—Two More Bicycles Wanted for the Work.

A recently developed use of the bicycle which, despite the fact that it is little known outside its own locality, is nevertheless enlisted in a most active and righteous work, is that to which it has been put by the "Cycle Missionary Legion," lately organized by the Salvation Army in the city of Syracuse, N. Y. The object of the Legion, as naturally would be inferred from the personality of its organizers, is to travel through the surrounding regions, "preaching the Gospel to those who are in sin and misery."

The reason for adopting the bicycle is perfectly obvious, the transportation facilities not always affording proper conveniences as to time schedules, and the necessary expenses being hard to bear. By this means, towns which are remote from railroads can be conveniently reached at any time and with a degree of certainty not promised by animal transportation invariably; meetings can be held and the other work of the Army attended to in proper order, and afterward, the soldiers who have thus become "cycle scouts" can move on to the next stop.

Thus far the work has progressed admirably, according to Capt. Shenkenberger, officer in charge of the German branch, but one thing is lacking. One or two more wheels are needed in order to extend the service still further and give added facilities to the workers. To this end, a call for donations is being sent out, explaining the need and giving assurance that any sort of bicycles will be acceptable, second-hand or otherwise used machines not being scorned. In return for the gift the Army promises untiring zeal in the work, and a prayer that "God's richest blessing may rest upon the donor." The cause is a worthy one and suggests a use for not a few bicycles that long have remained cobwebbed in garrets or in basements.

Motorcycles to Stop Burglaries.

In order to answer burglar alarms more quickly than is possible with the patrol wagon and determined to break up the epidemic of burglaries in Des Moines, Iowa, the police department has decided to purchase a motor bicycle and have an officer stationed at headquarters with the machine in readiness. This is the second machine in use in the department, a four-cylinder foreign motorcycle having been purchased some time ago for the express purpose of breaking up automobile scorching. The chief of police is more than sanguine of the success of his motorcycle scouts.

TOURING IN THE HIMALAYAS

Experiences of a Tri-Car Couple in That Little Travelled Region—Exhilaration Mixed with Danger.

"Ambala is about 38 miles from Kalka, which is situated at the foot of the hills. The road is practically level to the river Ghaggar, but after that rises steadily for about 12 miles. Kalka being about 2,000 feet above the sea," says a motorcyclist in describing a trip in the rarely traveled Himalaya mountains. "We decided on Kasauli as the destination for our tri-car trip. Kasauli is a small hill station about 5,800 feet above sea level, on the outer range of the Himalayas, nine miles from Kalka by the short bridle road, which is quite impossible for a tri-car. The cart road by which all the wheeled traffic goes is 15 miles to Wharampur, then dividing the main road going on to Simla and the branch to Kasauli (seven miles).

"We left Ambala at 10:30 a. m., i. e., my wife, self, a large portmanteau, roll of bedding, and lunch (in this land you take up your bed and walk), a pretty tight fit. The road was very bad and it was impossible to make any pace; in fact, without the spring frame I don't think we could have got along at all. After covering three-quarters of the outward journey we reached the Ghaggar river, an unbridged stretch of deep sand, with two small water channels. I had many fears that we should not be able to get over this, but with the help of four natives, and one rupee divided equally amongst them, we pushed and carried the machine across comparatively easily. After this the road surface was much better, but had deep grooves cut in it by the heavy traffic. Fortunately the tri-car filled these grooves to a nicety, so we made pretty good progress. It was a long, heavy pull up from the river, the gradient increasing almost perceptibly except to me, the driver. I could not get the engine to develop its full power, and the last five miles had to be done on the low gear.

"We got through the village of Kalka at 1 p. m., and then hit the gradient in real earnest. By this time I had traced the engine trouble to a fault in the carburetter, and I knew that we could not get up the hill without attending to it, so about half a mile up we halted for lunch, and while the memsahib got it ready I tackled the defective carburetter. How I blessed the makers for having it adjustable from the outside. I cleaned the jet well, held the float down, and let the gasoline flood over, then jacked the machine upon the stand and gave it a good clear out by pedalling hard. After this I readjusted the jet (you can do this to a hair), and on putting the engine to the test the machine sailed up the hill like the old days in Somerset. I ran

it down backwards and had lunch. At 2:30 p. m. we packed up again.

"All being ready, I started it up and put in the clutch; it slipped, and I pressed the lever hard home, too hard, for 'snap' went something, and the engine raced off. I had pulled the actuating cable clean out of the little brass button in the adjuster. It was no use trying to make a temporary repair with that stiff climb before us, so having established my passenger comfortably on the side of the road, I ran the machine back into Kalka by gravity, to a tinman's shop. There, after some little trouble, the repair was most effectually made (it has held ever since), and I went joyfully back again. By this time it was 4 p. m. We had 22 miles to do, probably most of it on the low gear, and nearly 4,000 feet to climb.

"The road was shocking, full of holes and bumps, and the corners were very sharp. Now and then we could get into the high gear, but only for a few hundred yards. We had to stop times without number for the traffic (bullock carts, pack mules and camels), but the game little engine never failed to take up the load again from 'free' when started up, and the clutch put in. At Wharampur the toll-gate man (a native) was very puzzled to see what we were, and how to assess the charge. We settled it most amicably by calling it a 'rickshaw that went by itself,' and they charged eight annas (6d.), the price of an ordinary rickshaw without any coolies (we scored).

"We were then seven miles from Kasauli, and the sun was just setting; it was also beginning to rain. I felt a little anxious about getting in, as it would be quite dark in a quarter of an hour, and I had never been over this portion of the road before. I found the engine racing along on the low gear, and so slipped in the high and let it go.

"The road must have been quite level there, and it was the most exhilarating, exciting and dangerous ride I have ever had. I don't know what my wife thought, in the front seat; she said nothing, but it was enough to try anyone's nerves. The way that machine took those awful corners, in the front seat; she said nothing, but it was simply bewildering, and it was lucky we did not meet any carts. At four miles from Wharampur we had to stop and light the lamps, and soon afterwards we struck the heavy gradient again, and I had to put in some pretty hard pedalling at times for short distances and round sharp corners. An acute angle with a railed narrow bridge at the apex, a precipice on one side and a cliff on the other, all being on an up gradient, take some negotiating in the dark. We were stopped three or four times by bullock carts. One driver abandoned his charge and rushed after us. He said: 'Huzoor, that is the bravest small carriage I have ever seen; show me how it goes.' I showed him, and when I opened the cut-off his delight was boundless.

"We reached Kasauli in the rain at 6:30 p. m., the first motor vehicle of any description to get there. As to the gradients, the road is not supposed anywhere to exceed 1 in 15. I can only say that at home in Somerset I used to take a hill 1 in 9 every day, throttled right down, and several times on this trip I had to use the pedals. I found that the carburetion was a good deal affected; probably the altitude had something to do with this. We came back the next day. Most of the journey to Kalka was done by running 'free,' but the state of the road prevented any pace. I used the engine compression as a brake most of the time. We left Kasauli at 1 p. m. and got to Kalka at 4 p. m., having stopped to take photographs by the way. After passing Kalka we put the pace on so as to get back to Ambala comfortably in time for dinner. We stopped to gather flowers, and again crossing the Ghaggar river, arrived at Ambala at 6:30 p. m. My machine is an ordinary pattern of tri-car with spring frame, plain coil, and 2-inch tires, with hand-brake on the rear wheel. The pedals are retained but in other respects it had been brought up to date by the makers before being sent out here."

Ellegaard Captures a Grand Prix.

Thorwald Ellegaard, the world's champion sprinter, won the Grand Prix de Neuilly, one of the classic French sprint races, at the Buffalo Velodrome, Paris, on Sunday, the 14th inst. Gabriel Poulain, who formerly held the title that Ellegaard has, finished second, one length behind and Francesco Verri, the world's amateur champion who but recently turned professional, finished third a half-length behind Poulain.

The victory of Ellegaard was not as surprising as the showing made by Verri, the young Italian, for in the third semi-final he had to outride Emil Friol and Henri Mayer, two of the best sprinters in the world, to enable him to get placed in the final heat. He certainly showed what he is made of when he trounced Friol by a length and a half and Mayer, well, he was hopelessly in the rear. The first semi-final heat saw Poulain returned the victor over Otto Meyer and Deschamps and in the second Ellegaard defeated Walter Rutt and Broka. Verri got the third and the final resulted as above described. In the handicap and tandem events run on the same day the crack sprinters were outclassed by the generalship of the longmarkers. In a 2,000 metre handicap Rutt and Ellegaard finished third and fourth and in the tandem race Seigneur and Deschamps beat Ellegaard and Otto Meyer and Poulain and Friol.

Thirty-four in Half-Century.

The Crescent Bicycle Club, of Baltimore, Md., held its second open half-century run from that city last Sunday under the direction of Captain T. W. Baker. Thirty-one of the riders qualified for souvenir medals.

SOURCES OF BATTERY TROUBLES

Many Ills Charged to Batteries for which they are not Responsible—Some Short-comings Pointed out.

Considering the vast quantities of dry batteries which are in service under every conceivable sort of disadvantage for call bell work, and the satisfactory manner in which they invariably function even when subjected to abuses, when they develop an unaccountable loss of energy or even a sudden demise when applied to the ignition service of motorcycles, it is safe to assume that something in the local conditions is unfavorable to their working. In other words, the fault must lie with some other portion of the equipment rather than with the cells themselves, although they usually are made the butt of all deficiencies which are traceable to loss of primary current. And not infrequently, an investigation into the manner in which they have been installed reveals a condition so unfavorable to them that the only wonder is that they have endured as long as they have.

One cause of weakness in the primary current which is seldom recognized, and one which is liable to occur at any time, arises from the excessive vibration to which they are subject. The natural result of this, unless they have been packed with extreme care, is to cause the strawboard cases in which they are enclosed, and which form the insulation of the negative pole to cut through, thereby grounding one or more cells, as the case may be, and furnishing a constant outlet for the current. A single cell only may be affected at first, and the leakage may be so slight that no difference in the running is noticeable. The weakened cell cannot fail to bring down the voltage of the entire battery, however, and the necessity under which all the cells labor, of equalizing the flow of current, soon depletes the remainder.

These same cases are also very sensitive to moisture, and if allowed to become wet under any circumstances, soon break through, in the meantime affording a slight opportunity for current to leak through their surfaces which are rendered more or less capable of conducting the current by the presence of the water. On this account batteries should never be placed in a damp box, nor allowed to remain in a damp place even for a short time. For besides the liability of leakages through moistened cases, there is great likelihood that even the best of insulation, if exposed for any length of time, will become depleted to a sufficient degree to permit a small amount of leakage at points where it passes in close proximity to metallic parts. Batteries which

have become wet through any cause whatever, should be removed from the battery box and thoroughly dried out before being subjected to further use.

In addition to these causes of minute loss of current which may come on at any time, there is more or less danger due to the common failing of riders of neglecting the ignition apparatus altogether so long as it will work at all. Thus a chafed wire may permit a small loss and remain undiscovered for a long time provided only that the loss is not sufficient to cause an absolute cessation of the current at the coil. Even then, the replacement of the exhausted batteries by fresh ones may prove deceptive for a time, and the fault which is really chargeable to the rider, may be laid at the door of the batteries, which are said to have "run down" unusually soon.

The practice of leaving the switch plug in place after the machine has been stopped is always wasteful, since even though the commutator may not have stopped on contact, there may be enough dirt on its insulation to carry a small current through the coil, or a possible leakage through the insulation, which even though slight, may work havoc in the course of a few hours.

Still another source of frequent loss, lies in the careless treatment of the connections; loose ends or improperly connected terminals, not infrequently securing touch contact with parts outside the circuit and causing losses. Incidentally, it is to be observed that loose binding screws are sometimes responsible for a lack of energy in the spark which no power of words can convince the owner should not be laid directly to the battery.

In many instances, it is not the rider but the maker, who is really responsible for the short life of the batteries. Thus the use of metallic battery boxes from which the leads are taken through holes which are entirely innocent of insulation, is to be deplored, while the use of insufficient packing under these conditions causes the battery cases to break through much sooner than they should.

Sometimes the maker installs a low resistance coil with batteries of too high potential, the immediate result being that the proper balance of the internal and external resistance in the primary circuit is upset, and the batteries are worked too hard. This fault results in the sudden depletion of the cells followed by a partial recovery when they have been allowed to stand for a time. The recovery is only temporary, however, and in the end, the cells are condemned as being either of poor quality, or too old.

But beyond any of these causes, probably the reason for the bulk of all battery troubles, is the same as that which causes the break-up of ignition systems in so many instances where the current is known to be of full value, that is to say, improper insulation. Generally speaking, the grade of insulation employed on the primary cir-

cuit is sufficiently strong to hold unless it is thoroughly wetted. With the secondary, however, it is different, and the slightest break in the covering of the plug wire, an almost imperceptible amount of moisture, or even the undue proximity of some metallic part may be sufficient to cause a considerable waste. This sort of waste is difficult to trace, since in many cases it is not sufficient to entirely kill the spark. As a result, the weakened flame, together with the fact that the apparatus appears to be in good condition otherwise, seems to point to the battery as the cause of the weakness. True, an ammeter test, will remove all doubts on this score, yet the average user is not inclined to spend overmuch time in testing his cells, and as a result, dozens of perfectly good cells are thrown away annually for no other reason than this.

Even a soiled spark plug may at times be the cause of bringing disrepute upon the cells, since a deposit of soot upon the insulation may frequently cause sufficient leakage to weaken the flame without absolutely breaking it. In this connection it should be borne in mind that a loose connection or a broken strand in the high tension wire, will work more than double the havoc possible to a similar fault in the primary.

Thus, when it is considered that against the possibility that the battery may be subject to a certain amount of decay even when disused and due solely to its age, under certain conditions, and especially when poor materials or workmanship have been used in its manufacture, there are a hundred and one causes of waste in its installation and use on the machine, it is reasonable to give it the benefit of the doubt. The instrument test will at any time reveal the exact present condition of each cell and of the group. If the decrease in value has been sudden and apparently unaccountable; if the spark grows weak without excuse, or the motor begins to miss when everything apparently is as it should be, there is every reason to believe that the blame lies somewhere outside the batteries, and that their weakness is only a flag to indicate a wrong somewhere else.

As to Speeding at Night.

Even with the aid of the best acetylene headlight that the market affords, attempting any speed on a rutty road after nightfall is a doubtful pastime, particularly on the motor bicycle. The light will seldom fail to reveal an obstruction of any size in time to avoid it but the peculiar character of the acetylene light does not bring up inequalities of the road as well as could be wished for, so that both ruts and holes appear to be far shallower and less dangerous than they are in reality. It is only after having noticed how greatly the resulting bumps exceed their innocent appearance that the rider appreciates that this is but another of those things that are not what they seem.

MOTOR SPEEDS AND VIBRATIONS

How they are Related and how the Effects
May be Observed by a Simple
Experiment.

Perhaps no subject receives more frequent mention in discussions relative to the theory and performance of the motor-cycle than does that of vibration. The rider is forever telling how free from it is his favorite mount, or how overwhelmed with it is some friend of his who rides another make of machine; the mechanical genius is forever telling how free from it is his the opportunity—reform this or that machine so that it would run as smoothly as a clock; this one tells how that machine “shakes all over,” and that one tells how he fails to see what is the harm if it does, and so on indefinitely. Yet comparatively few, except insofar as they themselves have been shaken down on poorly balanced machines, have any very distinct idea as to how the vibrations are caused, and how a very great number of petty effects are combined to produce the final result. How it is that by clever proportioning of the parts, and arranging the mechanism, this final result may be controlled by the designer, is equally a mystery.

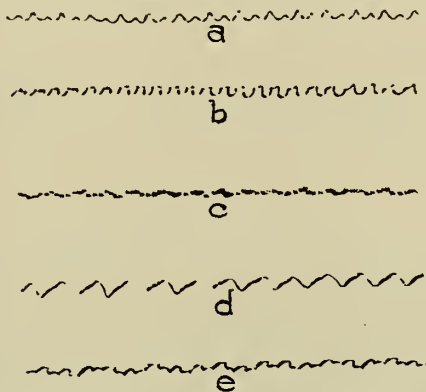
As a matter of fact, it may be considered in the first place, that the frame, like a truss, or even a simple beam supported at both ends, has a certain period of vibration which it assumes whenever it is set in motion from any cause whatever. Also, the motor is the cause of a host of complex vibrating stresses some of which are counteracted and others manifested externally to it, which serve to set the frame in motion. If the frequency of these vibrations corresponds in point of time with that of the frame, the result may be that the final motion of the latter will be increased, or that it will be dampened to a certain extent. Thus, it will be seen that the speed of the motor has much to do with the jolting of the mount. This fact is borne out in practice, as at certain speeds, the average machine will ride much more steadily than at others, the most stable speeds differing with different machines, thus revealing the influence of the design upon the resulting effects.

The effect of the inequalities of the road upon the smoothness or unevenness of the machine, also is very important, a certain frequency of recurrence of bumps, as when traveling over a rough road at certain speeds, producing a most distressing shake-up at the saddle. This also occurs when the time of the vibrations due to the road, occurs in correspondence with that of the vibrations due to the motor, and to the natural oscillations of the frame.

As a means of studying these effects in a general way, a very interesting and sim-

ple experiment is to suspend the rear end of the machine from above by means of a spiral spring which is adjusted in strength to respond to shock to the same extent as a fully inflated tire. By accomplishing this in some way, and then starting the motor, the effect of the vibrations due to its action alone may be observed with startling clearness, and by varying the speed of the motor throughout its range, and carefully noting the results, a distinct relation between the two may be noted.

To carry this still further, a graphic record may be produced by affixing a pen-



cil to one of the rear hubs, and causing it to press against a paper pad which is moved either horizontally or vertically by clock-work, and at a regular rate. The vibration of the machine will cause the pencil to travel backward and forward, while the motion of the pad will serve to produce a wave curve, which in shape and size will serve as a permanent record of the effects obtained. By causing the pad to travel horizontally, the vertical vibrations may be recorded, while by moving it vertically the horizontal component of the vibratory effect may be noted.

In this manner the five accompanying diagrams were obtained. Those labelled a, b and c, were taken when the mount was supported only by a rope from above. In this way only the direct effects of the vibrations were obtained. In the other two cases, the rear end was supported by a rope attached to a stout spring adjusted to give approximately the same resiliency as an inflated tire. In this way the conditions obtaining when the machine is standing on the ground were roughly reproduced.

The curve a, was taken with the engine running well throttled and turning over at about four hundred revolutions per minute. Subsequently the speed was increased, and curves b and c were taken as it was being speeded up and finally, when it was steadied at eight hundred revolutions per minute. When hung on the elastic support, an effort was made to adjust the motor speed to correspond with the time of vibration of the frame, and after considerable experimentation this was accomplished, with the very marked result shown at d. With the speed again increased, the balance was upset and the extreme effect noticeable in curve e, obtained.

HOLDING ONTO THE HANDLE BARS

Odd Failing of Cyclists who Can't Ride
“Hands off” or Even Remove One
Hand.

It is always provocative of strange wonderment to hear a man say he has never been able to learn to ride a bicycle. Next to that feeling, perhaps the most bewildering thing in the world is to hear a cyclist say he cannot ride “hands off,” or worse yet, that he cannot even remove one hand from the bars for the twinkling of an eye without being immediately precipitated bodily into the dust of mortification. Strange though it may seem to the rider to whom these things come as naturally as drawing breath, there are many persons who never seem able to acquire the knack of balancing themselves by the aid of their feet alone and just what are the reasons few of them can explain.

A living example of this type and one about which there can be no question of veracity on the one hand, nor sensible effort on the other, is E. W. Carritt, president of the Brooklyn Motorcycle Club. Mr. Carritt although he now pins a good share of his faith to the motor driven mount, yet retains his love for the bicycle, and takes delight in spinning out on it from time to time. In speaking of it the other day he remarked that though he has ridden upwards of 40,000 miles under the impulse of his good brawn alone, he admits freely that not until he had ridden a motor bicycle for some little time was he able to remove one of his hands from the bars, while as for riding “hands all off,” he could no more do it than he could flap his hands and fly.

Yet here is the most remarkable thing of all. Although he cannot let go the bars of his bicycle long enough to roll a cigar in his mouth, with the motor bicycle, he finds himself quite free to gesticulate largely—with his left hand. At the same time the right preserves its old-time affinity for the grip. This was not a natural result of the adoption of the motor bicycle, however, but was acquired only by a period of careful schooling.

Scores of other riders great and small are afflicted in the same manner, and with the same sort of reluctance, admit the weakness, if weakness it be, saying that however hard they may try, the support of the hands is requisite to preserve their balance.

“Not long ago I saw a bicycle that only lacked one thing of being a motor bicycle,” recounted a motorcyclist to a group of friends. “It had a horn big enough for a thirty horsepower automobile, an acetylene headlight and separate generator, a generous sized foot pump, and a regulation motorcycle saddle and bulging tool bag—in fact, everything but the motor.”

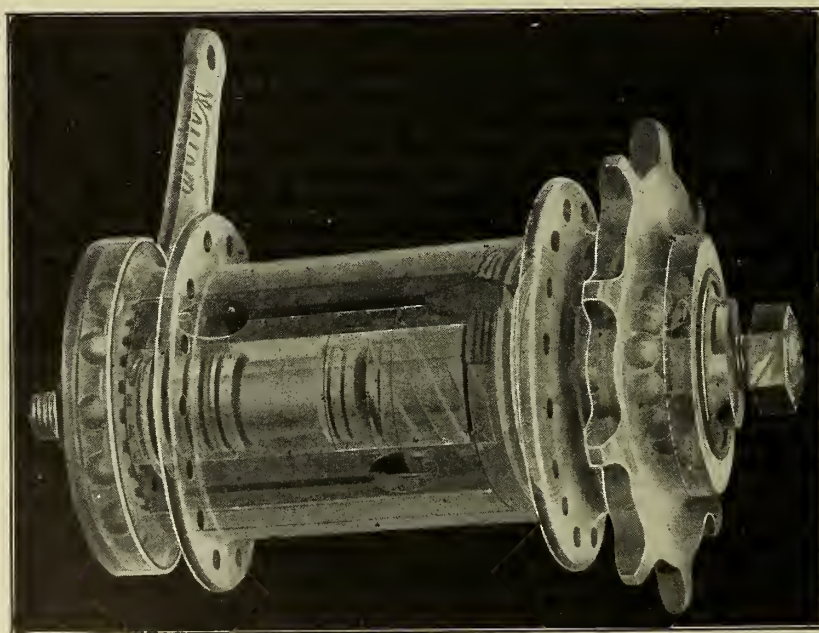
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CRITICAL VIEW OF SIDE SLIP

Entire Range of the Theories, the Causes and Influences Discussed—How "Skidding Forces" are Created.

While the matter of side-slip, so absorbingly interesting to the cyclist at nearly all seasons, appears to be governed by no factors other than the weather and the perverse caprices of fate, yet it is evident that, like all other material effects it must result from a combination of circumstances based on the relation of certain elements which are perfectly familiar and comprehensible. Occultism is no longer given the credence it used to have, at least, not in such mundane affairs as the pursuit of cycling. Therefore, there must be some rational and perfectly simple explanation of the phenomenon, and an equally simple method of preventing it. Whether it be easy to discover in the first instance, or plausible to apply, in the second, is a totally different matter.

In these columns two weeks since, the subject of side-slip and its prevention was dealt with in a general way, and the conclusions developed that: the condition of the road surface and its pitch, the size and hardness of the tires, the wheel base and weight distribution of the machine, and the assurance and steadiness or timidity and uncertainty of the rider, all are more or less vitally concerned in producing the very common and equally disagreeable result. An excursion into the theory of the thing may well start from this basis and progress to a more minute examination of the factors in their mutual relation.

Beginning as should always be done, at the ground, it is a well known fact that the grip of the tires, which also is a measure of their tractive effort, is dependent on two factors, namely, the weight and the resistance to sliding opposed by the material of the road, and measured in terms of a coefficient of friction. Varying either of these factors must obviously vary the grip of the tire. Thus increasing the load on the wheel increases its traction and decreasing the coefficient of friction decreases it. Similarly, any alteration in the value of either or both of these elements must bring about a similar alteration in the grip of the tire.

Water, oil, or any combination of water with the surface material of the road tends to form a slimy coating which prevents the tire from coming into intimate contact with the real surface. Thus it acts as a lubricant, and considerably reduces the friction. The less the area in contact with the road, the greater will be its tendency to squeeze the grease out from beneath it and come into direct contact with the road. Thus narrow metal tires skid less easily than rubber ones, while narrow racing tires by sinking into the mud, though harder to

drive, are yet less likely to skid than the larger types. In this way the entire virtue of metal-studded tires and those which are built on alleged non-skidding principles lies in the fact that they secure an intimate contact with the road. Their better grip than the smooth types is only partially increased by the hold which the sides of the projections obtain on the soft covering of the road. Also it is the result of this sinking into the grease, which makes them absorb more power than plain tires.

Following this line of thought a bit farther it is at once apparent that the harder the surface at the point of contact, the more will it tend to force aside any soft material which may be beneath it, while the softer it is the greater will be its tendency to override the muck, and yield to any obstructions. This quality, while the ideal thing in a general way, yet on slippery roads, evidently cannot do otherwise than to breed trouble for the rider.

Turning to the other side of the question of traction, it is at once seen that the weight on the tire may be varied in any of several ways. Thus, the position of the rider on the saddle and the proportion of his weight which is thrown upon the pedals, the length of wheel base, shape of the frame, position of the motor in the case of a motor bicycle, and, even the clothing worn by the rider, or his luggage, may produce differences in the load on the wheel at different times. These, however, are differences which may be considered as constant on any occasion, and therefore only obtain where the question of side-slip is concerned in accounting for a possible reason why the same machine may behave differently at different times under what appear to be the same conditions of road surface. A cause of alteration in the pressure which is never constant, however, and one which in all probability has more to do with unaccountable skids and slides than anything else, arises from vibration.

The forward effort produced by the propulsion of the driving wheel produces a reaction on the frame which is upward and tends to raise the front end from the ground corresponding with every effort imparted to the wheel. In consequence of this a concurring downward reaction is developed in the back wheel. Thus the rear end of a bicycle is constantly vibrating against the ground, as it were, the resiliency of the tires permitting a very noticeable latitude of movement. This is true of any machine, whether pedal or motor driven. In the latter instance, however, the greater frequency of the impulses, and their sharp incisive nature, increases the effect over what is its natural state in the pedal machine. In the motorcycle also, the pressure of the piston downward upon the crank produces a reaction which takes the form of a turning moment tending to rotate the motor bodily about its crankshaft and in a direction opposite to that taken by the shaft. This tendency is resisted by

the frame, but its effect is imparted to the entire fabric, and the result is a periodical thrust back and downward, which finds its outlet in a vibrating pressure on the rear wheel. A similar effect is also produced by the vertical motion of the piston.

Thus it will be seen that in any bicycle in motion, the pressure on the rear wheel is constantly varying, and that in the case of the motorcycle, these variations are more frequent and intense than in the pedal mount, their maximum intensity being reached when the vibrations due to the reaction of the drive on the frame and the motor thrusts on the frame, coincide in point of time and reinforce one another. Thus on a greasy surface, the result is a varying pressure which constantly tends to encourage any skidding action which may be induced from other causes.

As to the more direct causes of skidding, it is evident that any condition which serves to reduce the traction of the wheel upon the road, must also diminish its grip in all directions. Since in a general way it is true that the traction is not affected by the shape of the surface in contact, but holds the sides as well as forward or backward. Hence it is a natural conclusion that the forces which tend to produce skidding are frequently present in one form or another, but that they are resisted under ordinary circumstances by the traction, and only produce absolute side motion when that is diminished from any of the several causes just enumerated.

As to the nature of these forces, it is evident in the first place that whenever the machine passes over a sloping portion of the road, the tendency will be for it to slide off under the effect of gravity. This effect insofar as the slope is concerned, affects both ends of the machine equally, yet whenever, and as is most frequently the case, the bulk of the load is concentrated upon the rear wheel, the off-sliding tendency must be greatest there. This difference in the load upon the two wheels, evidently gives the rear end the greater momentum of the two, and this taken together with the fact that the propulsive effort is always from the rear, makes a tendency for the rear end to "race" the front whenever the two get out of the line of travel, their connection reducing this to a direct resultant tendency to swing broadside to the road. A third source of this "skidding force," as it may be termed, arises from centrifugal force whenever the line of motion is altered, the result being an effort on the part of the rear of the machine to continue in its original line of motion. Thus there are three distinct causes of skidding all of which may be present at any time, but which are only manifested concretely when they become sufficiently forcible to overcome the traction of the rear wheel.

Evidently, were a machine to be designed with especial reference to this action, an effort would be made to equalize the loads upon the wheels as nearly as possible, to

reduce the vibration to its lowest terms, to place the weight of the rider as near to the ground as possible, and to give as long a wheel base as would be consistent with the design so as to reduce the angular diversion from the line of travel, produced by a skid of any given amount, to the lowest possible amount. Yet a machine built upon such lines would not be altogether satisfactory in other respects, since robbing the rear wheel of a portion of its load for the purpose of utilizing the weights would also deprive it of some of its tractive power, lowering the frame would reduce road clearance, and lengthening the base would produce a machine more difficult to handle in traffic. These points should be given due attention in the design of any mount, however, as they tend not simply to eradicate skidding, but also to improve the machine in other respects if not carried to extremes.

The effect of the rider's skill upon the tendency to side-slip has been referred to. In the light of the foregoing considerations, it is evident that this can only be of importance where the skill is outlaid in keeping the mount to a straight course, avoiding as far as possible undue shifting about and consequent alteration of the load upon the rear wheel, and avoiding sloping portions of the road.

Really, there is nothing unaccountable in side-slipping no matter how suddenly it comes on. Invariably there has been a conflict between the skidding force and the tractive resistance of the wheel, lasting for a greater or less time according to circumstances, which it has ended in the mastery of the former. The apparent suddenness of the result is brought about by the fact that its action forces the lower part of the rear wheel slightly out of perpendicular, when the weight of the rider instead of falling on the line of the tire tread, acts outside of it, and that force added to the skidding element, which in itself may be very slight, produces the fall. The fall itself, however, is commonly of a very ordinary nature and would occur were the machine at rest and the wheel brought to the same inclination—the result of violating the first law of nature—gravity.

Chicago Cherishes Six-Day Hopes.

Chicago cyclists are dreaming dreams now-a-nights in which whirring wheels under champion riders plugging heroically in a six-day bicycle race figure largely in the foreground and with an indoor track for the perspective. L. J. Leonard of the Century Road Club Association of that city has so far had the biggest dream. Leonard figures that a six-day bicycle race con-

ducted on the same plan as the annual Madison Square Garden affair with much the same cast of performers would be a paying proposition in the Windy City, as a renewal of interest in cycling in that city seems imminent. With that object in view the Western division of the association has issued a call for all the old-timers and those who still cherish memories of the pleasant days a-wheel to meet in reunion at a reception and dance to be held in Brooke's casino on the evening of November 6th. Plans for holding a six-day race in Chicago this winter will then be discussed and if sufficient interest is awakened among the local followers of the game the riders who compete in New York's grind will be asked to put in a week's work in Chicago for big money.

"From what talk I have already had with some of the old cyclists about town," said Leonard, this week, "I am convinced that the six-day bicycle race is a possibility and a strong one, and we will do all in our power to make it a sure thing for Chicago. There is a reawakening of interest in cycling now and when the meeting is held November 6th at Brooke's casino I expect to see many of the old-timers out pulling for a revival of the sport, which will be inaugurated with the proposed six-day race of the world's best wheelmen."



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Join with us and share our success.

1907 Catalogue Now Ready

GENDRON WHEEL CO.
TOLEDO, OHIO

CARE OF MOTORCYCLE TIRES

Why They Require More of it Than Ordinary Bicycle Tires and Attentions That are Worth While.

Motorcyclists are of two varieties—either they are graduates of the bicycle or they have taken to the motor bicycle from the start; in both cases they can profitably take their cue in the matter of caring for their tires from the automobilist. Despite the continued neglect which is their share from the time they are put in place new until they will no longer serve the purpose, bicycle tires stand up to their duty with marvellous fidelity—with a little care it is possible that both bicycle and tires may end their days together and except in the case of racing machines it is unusual for a bicycle to wear out more than one or two sets of tires during its career in the hands of the same owner. But the old cyclist who has been converted to the power driven machine soon finds to his sorrow that the same policy of neglect brings disastrous results in its train when followed with his heavier mount.

Nor is it alone the weight that is responsible, for the far greater average speed and additional mileage which are accomplished on the motorcycle tires must be taken into consideration when judging of their qualities, for in view of the service they are called upon to render their life is only short in time, not in work performed, when compared with the bicycle tire. The man who lengthens his days by shortening his nights lives at a faster pace than his confrere who keeps regular hours but when his time comes he probably has endured as much if not more than the man who took things in moderation. He has simply taken life in concentrated form and that is what the motorcycle tire does. It lives a week of the bicycle tire's life in a single day of running. For this reason, if for no other, the motorcycle tire should receive a degree of care proportioned to the work it is called upon to perform.

And here the experience of the automobilist will serve as an excellent guide for in its turn the automobile tire is to the motorcycle tire as the latter is to its predecessor on the man power bicycle. And the first tenet of the tire owner's religion should be that of proper inflation—he should see that his tires are kept inflated as regularly as the most pious monk performs his devotions. Where the motorcycle tire is concerned no such leeway is permissible as the cyclist became accustomed to accord the footwear of his mount. Some cyclists never have their tires properly inflated and while they may have found their tires more subject to the ubiquitous tack or broken glass that leaves a puncture in its wake when soft and unsupported rubber comes in

its way, this is seldom rebuke enough to cause a change of attitude in this respect. Prompt use of the pump whenever there has been the slightest leakage is a golden rule in the care of a pneumatic tire—with those of the motorcycle it is imperative if economy be a factor.

The average motorcycle weighs eighty to ninety pounds more than the standard pedal bicycle and in addition to this, its average rate of travel is fully double that at which the usual run of cyclists care to

applies to repairs, they are not made until delay is no longer possible. Eleven times such a perfunctory meed of attention as the average cyclist finds himself compelled to give his tires would result in an unknown quantity and hence the motorcyclist must pattern after his bigger brother rather than look to his antecedents for guidance. And he will find that the automobilist takes good care of his tires for they are a mighty expensive item and nothing but constant and painstaking care will keep this item of expense account down to what it should be. In few things will a penny wise and pound foolish way of doing things make such a hole in its adherent's pocket as in the matter of tires. On a smaller scale the same thing is equally true of the motorcyclist.

He must do likewise if he expects to get the service out of them that has actually been put there by the manufacturer. He must keep them pumped hard—harder than he ever did on the foot driven bicycle for the extra weight and speed count in the ratio referred to. Care must be taken to see that the inner tube is not pinched between the beads of the clincher shoe when the latter is put in place and repairs must not only be attended to far more promptly but they must be made in a far more durable manner than often sufficed to put a bicycle tire in serviceable condition. As soon as a cut becomes sufficiently large to render its presence visible, it should be vulcanized, otherwise every mile travelled with the tire in that condition widens it, permitting the entrance of dirt and water which sooner or later find their way to the fabric, and rot it, or a stone finding the way thus opened for it cuts a hole in the canvas. Then the inner tube protrudes and promptly bursts—an occurrence which its owner is more than apt to put down to some defect on its part instead of his own neglect.

There are three fundamental elements that go to compose the golden rule of tire care and the motorcyclist who not alone bears them in mind but follows them when ever necessary will not alone get considerably more pleasure out of the use of his machine than his fellows but will likewise find that the cost is considerably less. They are, first of all, proper inflation at all times; prompt and permanent repairs as soon as the necessity therefore makes itself apparent and care in replacing a tire on the rim to see that it is not damaged in the process. For if the tire be not kept at the proper pressure it will puncture on contact with objects that would otherwise not damage it and running it too soft is also conducive to either rim cutting or excessive friction between the inner tube and the shoe. Failure to have repairs made until the damage has been done means that even after they have been effected in the best manner possible the tire will never again be as good as it was originally, which would be the case had the defect been made good before its presence led to further injury. Last, but not least, carelessness in replacing a



NEW YORK BRANCH: 214-216 WEST 47TH ST.

propel themselves for any length of time. Resorting to mathematics for a comparison, the matter of weight alone is almost five times as great as that of the bicycle, and as resistance increases approximately as the square of the speed, and the speed of the motorcycle is usually double that of the bicycle, the amount of wear and tear on the tires of the former may be put down as four times greater on the latter score. Then there is the further element of distance travelled and while it is difficult to state even approximately how far the average cyclist and motorcyclist travel, it is doubtless true that the mileage of the latter will be fully double that of the former at the end of the season. Combining these factors it may be said with some show of reason that the motorcycle tire is called upon to do approximately eleven times as much work as the bicycle tire during the same time.

In consequence, it is not difficult to appreciate the need for greater care. Still it would hardly be proper to say that the motorcyclist should give his tires eleven times more care than the cyclist, for the latter seldom gives his any more than is absolutely demanded by the exigencies of the moment. He pumps them when he has to and no oftener and the same thing

tire on the rim in the manner in which it should be done is probably productive of as much destruction as either of the other two causes—sometimes as much as both combined, for examination of many a punctured tire would show that the alleged puncture was in a portion of the tube that would be the last to be penetrated—that lying next to the rim.

Care in Rounding Curves.

One of the things that the beginner at the motorcycle soon finds it imperative to impress upon his mind is the fact that it is necessary to exercise more care in rounding corners than with the leg driven machine. It is so easy to run so very much faster with the motor bicycle than it is with the bicycle that one or two experiences at trying to take a curve are needed to bring home to many beginners that running straight ahead with a clear road and getting around a curve of short radius are two very different things. Shut off the power well in advance of reaching the corner and slow down to a pace that keeps the machine in easy control. If this were always done there would be fewer close shaves from finding that the curve could only be taken at a tangent owing to the high speed or that something such as a furniture van or trolley car bobbed up unexpectedly in just the course that the rider expected to follow.

Keeping the Cylinder Clean.

"Prevention is better than cure" and nothing about the motorcycle better proves the truth of the old saw than does the condition of the interior surfaces of piston head and combustion space. When the rider has the habit of securing a clean burnable mixture, a fat spark and right lubrication at all times, he finds it comparatively little trouble to keep the cylinder clean. And when it is considered how simple it is after all with a good machine and a little care, the only wonder is that any riders should allow their machines to get into a condition requiring that periodical dismantling which is so wasteful of time, and such a bothersome task at that.

Effect of "Sitting Careless."

"Sit careless and you won't fall off" was the advice of the driver of an Irish jaunting car to one of his passengers of the gentler sex who was clinging frantically to the back of the seat, much alarmed at the vehicle's swaying and jolting. And it is one of those expressive Hibernian truisms that may well be taken to heart by the cyclist or motorcyclist who is in terror of side-slipping on greasy pavements. The man who grasps the handle bars like grim death and attempts to ride stiff and straight come what may, is certain to go down on slight provocation while the rider who has an easy grip and who comports himself as if he were part and parcel of the machine he is riding instead of a foreign excrescence upon it, need have little fear of slipperiness going.

When a Motorcycle Falls.

It is as well for the motorcycle beginner to always bear in mind that his new acquisition weighs many times more than his former mount and that a fall will in consequence damage it that much more. He should accordingly see that it is supported so that a slight jar or even a bump will not bring it to the ground. Broken pedals, bent cranks and fractured gasolene or oil connections are but a few of the things that can happen to the machine when it is allowed to come down on its side with a crash. That either one or all of them does not occur every time a careless rider so places his machine that it topples over is rather a recommendation for the honesty of its construction than otherwise.

The Puncture That Did Not Occur.

As a cyclist was passing a silent running motor bicycle going in the opposite direction there was a sudden explosion. The cyclist dismounted and immediately inspected his rear tire while the retreating motorcyclist looked back to enjoy the fun at the former's look of surprise when he found nothing wrong. Then the cyclist glanced at the rapidly disappearing motor bicycle and caught its owner's pleased grin and the mystery was solved.

Always

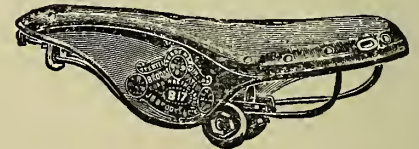
There is a Demand

for goods of the superlative quality. There are many who seek them; there are many more who would buy them if they were but called to their attention. This is as true of

Cycle Saddles

as of practically everything else. In saddles, the English

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is the name that ever has designated the world's best. "Not to know the Brooks is not to know how good a saddle can be made," is an old saying and a true one.

YOU can sell not a few of them if you but make the effort—and you'll find it well worth while.

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PRODUCTS of our BICYCLE DEP'T

Frame Tubes

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THE STANDARD WELDING CO., CLEVELAND

THE BICYCLING WORLD and MOTORCYCLE REVIEW

FOUNDED -1877-

Volume LIV.

New York, U. S. A., Saturday, November 3, 1906.

No. 6

AURORA WILL USE OWN PATENTS

Gives up Hendee License and will Produce its own Motorcycle Components—
New Features Coming.

Hendee having parted from Aurora, Aurora now has parted from Hendee. This is to say that the Hendee Mfg. Co. having decided to dispense hereafter with Aurora-made motors, carburetters and other components and to build the Indian motorcycles wholly in their own factory in Springfield, the Aurora Automatic Machine Co. have elected to no longer operate under the Hedstrom patents and Hendee license by virtue of which most of their Thor components have been produced.

It has been known for some time that the Aurora people themselves had developed a number of motorcycle inventions and obtained patents thereon and it is these inventions and patents which now will be brought to bear. Among other things they include a more powerful carburetter, a grip control, a new transmission and a noiseless muffler. On the gasoline motor, as such, no patent, of course, exists.

Of the nature of these new Thor devices only a hint is conveyed. The motor will be of the same general appearance and proportions and power— $2\frac{1}{4}$ horsepower—as at present, but the carburetter, grip control and muffler will differ radically from those now in use; the Aurora people speak of them with unbounded enthusiasm and say that those manufacturers who employ the Thor components of 1907 will be able to present machines of undoubted quality and bristling with fresh and original features that simply must command attention.

There are some special parts of the Indian motorcycles which the Hendee Mfg. Co. always have made in their own factory but in announcing their breaking-away from the Hendee-Hedstrom patents, the Aurora Automatic Machinery Co. hint quite broadly

that they themselves will retain exclusive control of the sale of such parts as have been made in their plant and as may be desired for repairs or replacements.

"Lon" Peck on His Own Account.

After twenty odd years of service for the Pope Mfg. Co., A. D. ("Lon") Peck finally has hung out his own shingle. The Pope branch in Boston having been discontinued, Peck has fallen heir to the agency for the entire line of Pope bicycles. He has obtained space in the former branch establishment at 223 Columbus avenue, in which he so long did duty, and if intimate knowledge of the goods and well wishes will contribute to success, "good old Lon" will become a millionaire in no time at all.

Motorcycles That Will be Shown.

Five motorcycle manufacturers have been allotted space in the first of the automobile shows that will occur, the one projected by the Automobile Club of America which will be held Dec. 1 to 8 in Grand Central Palace, New York. They are the Aurora Automatic Machinery Co., G. H. Curtiss Mfg. Co., Hendee Mfg. Co., Reading Standard Cycle Mfg. Co., and Wagner Motorcycle Co.

Harris to go Far West.

D. P. Harris, the well known manufacturers' agent, leaves next week for an extended round-up of the West and the Pacific Coast. He has so many desirable strings on his bow that no man in the trade could undertake such a journey with greater assurance of returning with a bulging order book.

Shelby Building New Tube Mill.

The Shelby Steel Tube Co. is erecting an additional mill at Elwood City, Pa., which it is expected will be completed and in operation by February next. It is anticipated that the embarrassing shortage of tubing which now exists will be then considerably relieved.

DIAMOND TURNS OUT NEW TIRES

There are Two of Them but Old Ones will be Retained, Also—Good Business is the Diamond Report.

Nowadays the production of a new tire for bicycles, particularly by an established manufacturer, is very much in the nature of an event. The fact that a concern of such prominence as the Diamond Rubber Co., Akron, Ohio, is producing for the 1907 trade, not one new bicycle tire but two of them, may be, therefore, characterized as a double event.

"Kim" is the title of one of the new comers but unlike the youthful subject of Kipling's story, "Kim" as applied to Diamond tires stands for an exceedingly high-class article. It is a woven fabric tire with a pronounced "velvety feel" and is of high grade construction throughout. Its makers say there is every reason why the Kim should become "a famous favorite."

The other addition to the Diamond line is the Diamond cushion pneumatic, a tire with a very heavy wall of special construction which is catalogued as "practically indestructible."

The other well-known single tube and double tube brands will be retained, viz., the Diamond Hunter, Diamond 400, Diamond 1920 and Ixion, among others, the Diamond people reporting the closing of some very nice contracts for 1907 and with no blurs on the horizon.

Baker Picks Two Fine Plums.

F. A. Baker & Co., the Warren street, New York, firm, had a plumfest all their very own during the current week. First, the Pierce Cycle Co. dealt out to them a fine large plum, or in other words, appointed the firm the Eastern distributing agents for Pierce Bicycles and then came the Hendee Mfg. Co. who handed out the general agency for Indian motorcycles for Greater

agency for Indian motorcycles for Greater New York. Baker & Co. are not strangers to either Pierces or Indians. They have handled both for a number of years but the appointments for 1907 greatly enlarge their territory. Heretofore they represented Pierces only in the country immediately surrounding the metropolis while on Indians they were restricted to the lower half of Manhattan borough. Now all Pierce agents in New England, lower New York state, New Jersey and Eastern Pennsylvania will come within their scope and while the other Indian agents in the greater city probably will not be disturbed, Baker & Co. will be the general agents.

What the Home Dollar Does.

An interesting experiment was recently tried in a small Eastern town that was intended to demonstrate the advantages of patronizing home dealers in preference to the mail order houses. The idea was to show that a dollar spent at home does good to many each day and that its actual monetary value is not its full measure of good in a community. A dollar was tagged and on the tag was the request to note to whom it was paid and for what. In a few hours it had passed through the hands of a grocer, a butcher, a collector, a sporting goods dealer, a bookstore man and a preacher. Within a few days it had paid over \$100 worth of debts. When spent with a mail order house it leaves the home town and does no more good there.

More Roller Chains from Duckworth.

In addition to the roller chain of one inch pitch, it transpires that the Duckworth Chain and Mfg. Co., Springfield, Mass., is producing a roller chain of $\frac{3}{8}$ inch pitch in quarter inch width. It is designed especially for motorcycle use, the detachable Duckworth repair link being employed.

Soon May be Senator Johnson.

In all likelihood, J. Lovell Johnson, of the Iver Johnson Arms & Cycle Co., Fitchburg, Mass., will be Senator Johnson after Tuesday next. He is standing as a candidate for the State Senate and the prospects of his election are excellent.

Cole Becomes a Vice-President.

At the annual meeting last week, John C. Cole, for many years superintendent of the Fisk Rubber Co., was elected an additional vice-presidency that was created. All other officials were reelected.

The Retail Record.

Patchogue, N. Y.—O. B. Slatterly, opened repair shop on Roe Court.

Youngstown, Ohio.—Reese & Seaborn; involuntary bankruptcy; liabilities, \$4,200; assets, \$3,300.

Richmond, Va.—Wilmer M. Batten, formerly of Millville, N. J., opening store on Broad street.

SEPTEMBER A SLUGGISH MONTH

Export Trade Lacked Activity and the Few Small Gains Failed to Swell a Low-water Total.

Despite the fact that not a few of the items of the export report for the month of September show an increase over those of the report for the same month a year ago, the total exhibits a falling off of about 10 per cent. And what is more, several of these increases are substantial though the amounts themselves are comparatively small, as for instance, that of the United Kingdom, which took almost six and a half times as many American bicycles during September, 1906, as during the same period of 1905, as shown by the increase in the value from \$1,683 to \$9,542. A somewhat similar state of affairs is noticeable in the case of Germany which also increased in about the same proportion, the amounts being \$993 and \$5,931. Other Europe, British North America and some of the smaller countries also show slight increases but it is evident from the tale told by the totals that in the aggregate these were not sufficient to offset the defection of such large takers as Japan, for instance, whose takings during the past several months have fluctuated between wide limits of increase and decrease without apparent reason.

When the totals for the periods of nine months ending with September in the past three years are compared, a net gain of \$80,000 is shown for 1906 as compared with 1905, but the former still falls considerably short of that of 1904. For 1904, 1905 and 1906 the totals for the periods in question are \$1,357,550, \$1,072,657 and \$1,153,397, respectively. And in this part of the table there are to be found some encouraging increases, such for instance as those exhibited by the United Kingdom. Other Europe, Germany, the Netherlands and Italy, the largest by far being that of the Netherlands which soared from \$31,202 in 1905 to \$108,786 in the present year, and the smallest that of Italy in which case the increase was but from \$16,985 to \$23,349.

The report in detail follows:

Exported to—	1905.	1906.	Nine Months Ending Sept.			
			1904.	1905.	1906.	1906.
United Kingdom	\$1,683	\$9,542	\$206,662	\$176,661	\$221,662	
Belgium	874	1,086	45,138	20,215	19,583	
France	3,747	1,124	72,301	58,837	17,655	
Germany	993	5,931	103,525	49,296	76,300	
Italy	1,313	300	31,661	16,985	23,349	
Netherlands	4,275		73,014	31,202	108,786	
Other Europe	4,668	5,270	136,833	139,918	190,803	
British North America	1,355	2,275	104,177	108,180	61,936	
Mexico	7,744	5,321	33,154	48,472	85,174	
Cuba	2,059	1,110	27,599	30,131	24,197	
Other West Indies and Bermuda...	1,752	2,204	25,253	20,057	16,284	
Argentina	1,266	1,196	13,904	11,148	16,229	
Brazil	234	657	11,635	4,625	7,433	
Other South America	1,442	1,530	15,453	12,297	13,838	
Japan	19,511	8,515	258,478	230,579	174,699	
British Australasia	10,840	8,227	140,515	69,032	62,759	
Other Asia and Oceania	2,343	2,588	45,684	38,276	18,834	
Other Countries	1,184	2,841	12,564	6,746	13,876	
Total			\$59,717	\$1,357,550	\$1,072,657	\$1,153,397

"Ten Days' Free Trial" Didn't Go.

They do some things better abroad, as, for instance, in rounding up the so-called "storage companies" and mail order houses that are given to gilding brass in their advertisements and catalogues. An example of the sort was recently made of the Champion Cycle Co., of Sheffield, which heralded a bicycle of the "ten days free trial" type that "absolutely defied competition" for the small sum of \$23.50. The glowing advertisement fell under the eye of a rural bricklayer and he parted with that sum on the strength of the representations. The confiding countryman, having taken advantage of "this astounding offer" stated to the judge of the county court, where the next scene was laid, that in return for his money he received a machine with "one buckled wheel and rusty rims."

Not caring overmuch for that kind of a mount he returned it without delay and as usual, found that he had jumped from the frying pan into the fire as he could get neither the machine nor his money back. The defendants appeared in court, which is something unusual for people of that ilk, and tried to repudiate their liability on the ground that the machine was not returned to them within ten days of the time that it had left their "factory." But the judge saw through both the defense and the defendants and gave a verdict for the plaintiff with costs, remarking that people who publish "fairlylike advertisements must abide by the results."

To Adjust the Contact Point.

Attempting to set the contact breaker with the motor stopped is equivalent to trying to draw a portrait in the dark; there is no telling what the result will be like until the light is turned on again. Run the machine on the stand and turn the adjusting screw as slowly as it is possible to do so. No other guide than the manner in which the motor responds to the change will be necessary to determine the point at which the screw should be left. Then tighten the screw into place so that the vibration will not cause either to work loose again of its own accord.

MEN WHO MAKE THE MOST SALES

Wherein and How Their Salesmanship Shows Itself—False Notions Entered by the Dullards.

It does not require a vast amount of observation in making the rounds of a number of retail stores to become aware of the fact that the clerk—the man behind the counter—is a very important factor in the business. Every one can recall experiences when the tact, personality and ability of a salesman resulted in the purchase of an article that otherwise would have been put aside as not being quite what was wanted. It matters not how fine the goods or how they are advertised, the sales will not be as large nor as lasting if the salesmen have not the essential qualities that go to make a successful trader of goods. "Some time ago I was conversing with a veteran manager of a sporting goods store who employs a half-dozen house salesmen," says a contributor to a contemporary. "One of them was obviously a new hand and his awkward method in attending to the wants of a few customers provoked comment from the manager, who on being drawn out, delivered himself of the following remarks on the subject of salesmanship. As they are based on many years' actual experience in handling goods across the counter, and a careful observation of the men in his employ, they are worth the attention of all who are seeking success in the retail sporting goods establishment. Salesmanship is a great thing and too much study can not be given to it.

"After watching my own salesmen and those in other stores, as well as studying the subject during my own active work," said he, "I have about come to the conclusion that nine out of every ten can learn to be good salesmen if they will go at it in the right spirit, just as they would seek to be good artists or singers. There is a great deal to learn before you can step in behind a counter and sell a man something that he isn't suited with at first sight, and it isn't to be picked up in a minute; a salesman needs systematic education. Some men say it isn't worth while to take all the pains of learning to be a professional salesman, when they don't intend to remain behind the counter all their lives. They say that a man can't afford to work too hard at something that will never pay him more than a clerk's wages. Now, of course, that is all right if he is satisfied to remain a clerk all his days, but it always struck me that the chap who is afraid of doing his work too well isn't exactly the most likely candidate for promotion. I didn't get my promotion by being afraid I'd spend more time learning about my job than I was getting paid for.

"The fellow who wants to be his own

boss some day won't be a very good one if he doesn't know anything about what his men ought to be doing and how they are doing it. Most every man who has made a mark on the top rung of the ladder has begun by making a deep footprint on the bottom one first. I believe that some fellows have the knack of just telling what sort of a customer they have as soon as he asks for a reel, hunting coat or whatever he may want. That's reading human nature, I suppose. I never was very good at it naturally and all I learned in that line came by just studying the people I met every minute. I found that I learned to judge a customer about as well as any one and I could handle them to the advantage of the house where I had been losing them altogether before. And I found out one thing—you don't have to load up every customer with all the goods he will buy. When I first began I had an idea that the crack salesman was the man who could sell a customer the most goods—just pile on all that he could possibly be made to take away and pay for. I worked on that basis for a while until I saw a few cases where men I had loaded up with too much of something that wouldn't keep forever seemed to go back on the store. They didn't come in as often as usual. It was then that I tumbled to the great principle of salesmanship. The man who makes the most and the best satisfied customers is the best salesman. If salesmanship is a secret at all, it is the making of satisfied customers. They are the best advertisement a store can have.

"You can't make a satisfied customer by selling a person something he don't want or that won't give him satisfaction when he uses it. A young man should try and make himself the kind of salesman the people will come back and ask for. When a man gets to pleasing the people he waits on so well that they want to do business with him again, then he has made himself worth something to the store and he is getting in line for a raise. The greatest virtue in a salesman is honesty. It pays to be honest, and it pays in real money. Chicanery never gains a man any lasting benefits. I've tried it and I know. I've sold men artificial minnows that I knew would peel off the first time they were put in water, although I sent them away believing that they would last forever—and I've had them come back knowing that I fooled them, and I tell you that it is mighty unpleasant when you get caught trying that kind of work. You will find that the people are not so anxious to trade continually with a chap who is always smooth and smiling, as they are to buy from the fellow who tells them things just as they are and who does it every time and gets a reputation for doing it. A man can't be smooth and fool a customer once without taking chances of ruining his reputation for a long time to come, especially with those he deceives. One of these smart

clerks can fool a man in just about two minutes but it will take more like two years to get back the reputation held before adopting such methods. You can't get around the fact that honesty is the mental and moral foundation of good salesmanship. No man ever got a lot of customers going regularly to a store unless he treated them right every time he did business with them. People know when they are robbed or fooled, and they don't always come round and kick about it either. As a matter of fact, a majority of disappointed customers just say nothing, but they mentally resolve never to spend another cent in the store and they don't. The man who comes back and complains gives you a chance to clear yourself with him, but the fellow who just makes up his mind that you are crooked and let's it go at that, keeping away from you and advising his friends to do the same, does you a lot of harm that you probably deserve—unless you deceived him unintentionally.

"There is a great deal more in being honest than merely refraining from taking things that do not belong to you. Any man can be honest in the eyes of the law by taking care that he doesn't do anything that he could be arrested for, and yet go on cheating people right and left. If you don't want to be honest because it is the right thing to do and because you know that you haven't any business being anything else, then you never will be honest enough to hurt you any. When I go out to buy things myself I don't want to go up against the fellow who is only just as honest as he has to be. I am not trying to preach to you, but only giving you some straight business talk as you asked for. Any young clerk who thinks there is money in the 'slick' school of salesmanship has my permission to experiment if he wants to, but if I were looking for a clerk I wouldn't hire that kind if it was the only thing left. There is a lot to salesmanship besides honesty, but if honesty is left out the other things don't cut a very big figure."

When Chain Rivets Defy Files.

Those motorcyclists who having suffered a broken chain link have filed despairingly at the case hardened rivet only to make no impression on it, will do well to bear in mind that a small cold chisel is about the only means available and is worth adding to the complement of tools. The chisels can be had in sizes no larger than a finger and with a rock or heavy wrench, the head of the toughest rivet can be speedily chipped off.

Sawdust and oil form a good substitute for soap, but unfortunately the substitution is not reversible. Hence the man who begins a journey with a cake of soap and no oil may become very unhappy before he reaches his destination, even though his hands are clean.

A Demonstration of Our Claims of Durability of the National

A few days ago we received from one of our old customers a National, which he had sold in 1896, and which had been in continuous service ever since.

He sent it to us as a sample of National durability.

After it had been ridden over 17,000 miles, its owner decided to try for the 300 and 400 mile records, and succeeded in breaking both of them.

This bicycle has been ridden over 50,000 miles and contains the bearings which were sent out in it originally.

The cups and cones to-day are as bright and free from blemish as when new.

It's good for another 50,000 miles, but we will keep it as tangible evidence of results from using good materials.

There are thousands of Nationals just like this one.

Nationals to-day are made from the same quality of materials.

We have always been believers in good bicycles, and as every machine we make carries our trade mark, we cannot afford to cheapen their construction.

Are YOU Riding or Selling a Bicycle of the Sort?

NATIONAL CYCLE MANUFACTURING COMPANY
BAY CITY, MICH., U. S. A.

**Comfort
Resiliency**

and 45 per cent. Saving in Tire Maintenance are the essentials
of the ever reliable

Fisk Bicycle or Motorcycle Tires

Like all Fisk products, they have a Quality and a Construction that is exclusive—real merit—through and through—that makes their distinct superiority apparent.

WILL OUT-LAST TWO OR THREE OF OTHER MAKES

THE FISK RUBBER CO., Chicopee Falls, Mass.

THE BICYCLING WORLD and MOTORCYCLE REVIEW

FOUNDED 1877

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Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should
Address us at P. O. Box 649.

NEW YORK, NOVEMBER 3, 1906.

The Mail Order Situation.

One of those perennial moot questions, which are always open for discussion, and which never seem to be wholly covered at any one time, is that of the mail order business in its relation to the more commonly considered legitimate trade of the local dealer. It is a question of many sides, and one involving at once the two important factors of persistent enterprise on the one hand, and that peculiar semi-isolation of the bulk of the market on the other, which, in reality, measures a large portion of the strength of the mail order house in its stronghold in the backwoods districts.

Not to go too deeply into the specific qualities of the rural market, it is sufficient to point out two anomalous characteristics of the dweller outside the cities' gates, which have much to do with this particular matter. The first of these is his inherent aversion to novelties, as shown in his conservative dislike of untraditional methods and his shy distrust of strangers. The second is his greed for gain which, usually out of all proportion with the conduct of his daily life, makes him easy prey to the gentlemanly dealer in wildcat stocks and his cousin the green goods man, to say nothing

of the long-distance purveyor of everything he needs and a great deal he does not need. These crafty gentry, prying up the lid with consummate skill, get right down to the depths of the agricultural heart with a few bland words, simply and only on the strength of an appeal to that wholly praiseworthy desire to make a little money go a long way. Safe to say, the success of the attempt is realized more literally than is appreciated, especially in the case of the average mail-order deal. That the return for the long journey taken by the mouldy pennies is wholly out of proportion to their value is not appreciated as a rule, simply because of the glittering halo cast about the transaction by the manufacturer of catalogues, and the natural effect of its scintillation upon the customer's mind.

The successes of the mail order dealer are based upon one and only one trait, namely, his persistency. For he is laboring against the greatest of odds in overcoming the native shyness of his customers, and though he may play foxily and well upon the stupendous credulity of the countryman, appeal to his averice, and discover his wants with timely pointedness, all would fail in the face of natural distrust, were it not for the fact of the repetition in endless rotation, of suggestion after suggestion, appeal after appeal. The farmer has grown to trust that with which he is familiar by everyday contact. He knows his cattle, he knows every inch of his fields and pastures, and so, in time, he comes to be familiar with the literature of the dealer who is hammering away at him all the time with the never ending theme of convenience and economy. He knows what his local dealer has in stock, knows him personally, has confidence in him, is certain of fair treatment, it may be, yet the long distance bell is constantly dinging in his ears, and after a time he comes to listen to it.

But it has been well said that "the number of orders taken by mail order houses in each dealer's territory depends on what the dealer does to push his own goods." Thus, where the local dealer sits in his store reading the advertisements of the western bugaboos and mentally cursing them and their entire family tree down to its very roots, merely attending to the spoken wants of those who come in to trade, those same ads. are being read all over his little field, and their message is sinking home to stay. No matter how much skill and pains may be outlaid in stocking

up, no matter how faithfully he may strive to please those who come to his doors, he is at a disadvantage. For while he is passively endeavoring to fulfil an acknowledged need, to supply a spoken demand, his more powerful rival is sending a thousand silent little messengers into every home, offering what purports to be the same value at lower cost, and without the incidental of the trip to the store. The one is passive and the other active, the one responding only to a call, the other calling and answering at the same time.

The moral is obvious. The hound fleetest of foot and deepest of bay, not only runs down the hare soonest, but retains the leadership of the pack. He may not be a very handsome dog, nor yet kind to the hare, but the keenness of his scent, and the concentration of his effort, make up for any little deficiencies he may possess in other respects. The only way the little man in the little store can compete with the deep tongued hound of the mail order kennel, is to get out and bark, too, and follow the scent he knows so well, until by very barking his lungs also grow sound and deep, and by very running, his legs grow strong. He knows the country better, knows the hare, too; all that is lacking to his winning of the hunt is that vigorous get-up-and-get-out spirit, and the persistency it breeds. Before dealers justly can complain of mail order "invasions" they must ask themselves what they have done to reach out and obtain a particular order or to prevent the mail order word-jugglers from making a sale or sales; and they must answer their question fairly and specifically if they would not deceive themselves.

Col. James D. Bell, who is among the candidates for Justice of the New York Supreme Court from the Second Judicial District, which embraces all of Long Island and Staten Island, deserves the favorable notice of the cyclists of that district. The fight is a three-cornered one and the friends of Col. Bell are therefore bestirring themselves in his behalf that no vote shall escape them. Being familiar with the service and friendship Col. Bell has rendered the cycling and motorcycling interests, the Bicycling World, as a matter of gratitude therefor, goes out of its way to bespeak for him the suffrage of all cyclists in his district. He is a clean, clear-headed, estimable gentleman in every way worthy of the office he seeks.

COMMERCIAL STAFF OF THE FISK RUBBER CO.



1—W. C. Woodward, Chemist.
 2—J. H. Cody, Cleveland Manager.
 3—W. P. Kearney, Montreal Manager.
 4—C. N. Carpenter, Chief Auditor.
 5—Beni. Pratt, Special Representative.
 6—F. S. Smith, Superintendent's Assistant.
 7—C. Pratt, Ohio Salesman.
 8—B. W. Meixell, Indiana Salesman.
 9—J. C. Cole, Superintendent of Repairs.
 10—J. H. Broadwell, Vice-President.

11—D. P. Ballard, Purchasing Agent.
 12—R. F. Thompson, San Francisco Manager.
 13—G. E. Johnson, Pacific Coast Manager.
 14—H. S. Mason, Los Angeles Manager.
 15—E. M. Bogardus, Accountant.
 16—W. C. Mayville, Atlanta Manager.
 17—F. Lyman, Traffic Manager.
 18—J. W. Bowman, New York Manager.
 19—A. C. Bolster, Superintendent of Repairs.
 20—H. G. Fisk, Secretary.
 21—R. Belt, Kansas City Manager.

22—F. C. Riggs, Vice-President.
 23—B. W. Meixell, Pennsylvania Salesman.
 24—M. Penrose, Philadelphia Manager.
 25—A. H. Wikoff, Chicago Manager.
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 27—Geo. Campbell, Boston Manager.
 28—S. M. Moses, Buffalo Salesman.
 29—E. Nobles, Boston Salesman.
 30—A. L. Beers, Superintendent of Branches.
 31—F. H. Ayers, New England Salesman.
 32—H. Hoffman, Buffalo Manager.

33—B. Parker, Advertising Manager.
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 36—L. Mansuy, Assistant New York Manager.
 37—W. Lambie, Detroit Manager.
 38—E. Percy, New York Salesman.
 39—W. R. Walton, Chicago Salesman.
 40—E. E. Smith, Minneapolis Manager.
 41—L. D. Mosher, Repair Manager.
 42—M. R. Brown, New York City Salesman.

GOOD SPORT AT PROVIDENCE

Hoyt Captures Championship but Honors
Were Well Distributed—De Rosier
Does 1:15½—Thrilling Accident.

Despite one postponement and a chilling half-gale, there was no gainsaying the success of the Providence Motorcycle Club's racemeet on Sunday last, 28th inst. In the face of the intemperate weather, about 1,200 persons made the eight miles trolley jour-

practice of looking backward—a practice which caused so many spills in the heyday of cycle racing that it came to be treated as an offense punishable by disqualification. In this instance, W. G. Friend, of Newport, R. I., was the sole victim of his own folly. Eighteen other men were in the race but luckily none was near him when turning his head he also changed his direction and the machine dashed at full speed into the rail. His Indian semed almost to turn a somersault. Its front forks were pushed away back and the tank in the rear

of flying men swept around. How they all escaped is almost a mystery. Two of the men actually passed between the unconscious form and the wrecked machine, while a third slipped past by fairly hugging the pole. There were a series of thrilling moments. It was fully a minute before it was safe to go on the track to remove the unfortunate. Friend, however, recovered consciousness soon after, cuts and bruises proving to be his most serious injuries. The race was won by the "wheel horse" of the Providence club, B. A. Swenson, who



HOYT ABOUT TO TAKE THE LEAD IN THE CHAMPIONSHIP EVENT

ney to the Hillsgrove track; and that number is a good crowd from the motorcycle standpoint. Vice-President Hastings, of the F. A. M., and Roland Douglas, chairman of the F. A. M. Competition Committee, journeyed from New York to officiate and G. B. Gibson, treasurer of the organization, came from Westboro, Mass., for the same purpose, while Carl J. Swenson ran up from Newport to clerk the course. Other visitors also were there, even from Brockton. They saw several runaway races, also several that were not runaways and at least two that were genuinely exciting, one of them the 10 miles national championship which Fred C. Hoyt won in clever style. They saw Jacob De Rosier dash off an exhibition mile in 1:15½—wonderful going on a half-mile horse track—and they saw at least one accident that made their hair stand on end for a few moments.

The accident happened in the ten miles handicap and was due to the usual novice

was dented away in as if struck from above. Friend himself was knocked senseless. He lay where he fell, apart from his machine. Before anyone could reach him the big field



FRED C. HOYT

with 2½ minutes handicap, romped home with nearly a lap to spare in 14:09. The fight was all for second place, A. Heilbron (3½ minutes) beating out J. S. Nisbet (4 minutes) by ten yards. De Rosier (scratch) was coming fast up the straight with Hoyt, also a scratch man, in close pursuit, but with Buffington sandwiched between them.

De Rosier also had a hard fall during the afternoon and Swenson and A. M. Whitmarsh had a mix-up but without serious consequences. The cause of their tangle also was suggestive of those that were not infrequent in former days on cycle tracks. Swenson was warming up when Whitmarsh trundled his machine on the track and was run into. Both were knocked down but Swenson had been moving at reduced speed and no harm resulted.

The ten miles national championship and the unlimited team pursuit race were the two events that created the most interest. In the former, Hoyt and De Rosier, both

of Springfield, on double-cylinders, were practically sure of the chief honors but, nevertheless, four men on singles lined up to give them battle and to fight for the bronze medal emblematic of third place. The race, of course, was all between the

alone, Pickering put up a fine fight for his team although in the cause of a forlorn hope. Domina and Whitmarsh gained slowly but surely but Pickering never let up and his game effort "caught" the crowd. Finally Domina, with his great big motor, over-

get clear of the "also rans." The summary:

Two mile novice—Won by F. Wilkinson, Providence, 3 h. p. Marsh; second, William G. Friend, Newport, $2\frac{1}{4}$ h. p. Indian; third, H. L. Waite, Providence, 2 h. p. Yale. Time, 3:28 $\frac{1}{2}$.

Three miles open—Won by J. B. De Rosier, Springfield, 4 h. p. Indian; second, F. C. Hoyt, Springfield, 4 h. p. Indian; third, E. L. Buffington, Providence, $1\frac{1}{2}$ h. p. Indian. Time, 4:00 flat.

Ten mile national championship—seven starters—Won by F. C. Hoyt, Springfield, 4 h. p. Indian; second, J. De Rosier, Springfield, 4 h. p. Indian; third, B. A. Swenson, Providence, $2\frac{1}{4}$ h. p. Indian. Time, 13:26.

Two miles (for Rhode Island riders who had not won a motorcycle race)—First heat won by J. S. Nisbet, Providence, $2\frac{1}{4}$ h. p. Merkel; second, B. L. Barnes, Providence, $2\frac{1}{4}$ h. p. Merkel; third, F. Wood, Pawtucket, $3\frac{1}{2}$ h. p. Thomas; fourth, A. C. Carlson, Providence, 3 h. p. Marsh. Time, 3:32 $\frac{1}{2}$. Second heat won by A. M. Whitmarsh, Providence, $1\frac{3}{4}$ h. p. Indian; second, A. Heilborn, Providence, 4 h. p. Orient; third, C. F. Murphy, Newport, $2\frac{1}{4}$ h. p. Indian; fourth, W. G. Friend, Newport. Time, 3:22 $\frac{1}{2}$. Final heat, eight starters,



START OF THE TWO MILES FOR RHODE ISLAND RIDERS

Springfielders, but they made a pretty race of it. Hoyt got all the best of the start but De Rosier collared him in the second mile. De Rosier seemed to have the fastest machine but what he gained on the stretches he lost on the turns, which Hoyt took in fine style, close to the rail, while his rival ran wide. The effort of the latter to get by supplied the excitement. Hoyt stalled off his every and though De Rosier almost lifted machine up the homestretch on the last lap and though he closed the gap considerably, Hoyt was two yards too good for him at the tape. Time, 13:26. Swenson led the single cylinders.

De Rosier again tried hard in the final heat of the half-mile, flying start, for single cylinders, although he also tried the crowd's patience by his usual practice of seeking to get the best of the start. Three times he caused false starts by running ahead and in one of them he fell but when the pistol finally was fired Hoyt proved quicker on the trigger than the crafty Jacob, and getting the pole was never in any danger. His time was 42 $\frac{3}{4}$.

The pursuit race was to have been contested by teams representing the Providence and Newport clubs but Friend's misfortune left the Newporters short handed aid in consequence two teams of three men each from Providence made the running.

Domina, Whitmarsh and Heilborn constituted one team and Buffington, Pickering and Nisbet the other. They started from opposite sides of the track, of course. Nisbet was the first man bowled out, Whitmarsh catching him inside of two miles. Buffington was the next one to be "tagged" but it took a stern chase to catch him. Left



REFEREE DOUGLAS (LIGHT CAP) AND THE OTHER OFFICIALS

alone, Pickering put up a fine fight for his hauled the man in the striped jersey and all was over. But it had taken more than 13 miles to "do the deed."

The two miles for Rhode Island riders who never had won a race was run in two heats and a final and provided two spirited finishes, the final being won by Whitmarsh in 3:17. The novice race was gathered in by Frank Wilkinson who won in such dashing style that it seemed he must figure prominently in the other events. But he disappointed anticipations by failing to

won by Whitmarsh; second, Nisbet; third, Friend; fourth, Heilborn; fifth, Murphy. Time, 3:17.

One-mile exhibition—J. De Rosier, of Springfield, 4 h. p. Indian. Time, 1:15 $\frac{3}{4}$.

One-half mile, single cylinder, flying start—First heat—J. S. Nisbet, F. E. Domina, Providence, $3\frac{1}{4}$ h. p. Domina; B. A. Swenson, 3 h. p. Merkel; F. Wilkinson, qualified. Time, 0:51 $\frac{3}{4}$. Second heat—J. De Rosier, $2\frac{1}{4}$ h. p. Indian; F. C. Hoyt, $2\frac{1}{4}$ Indian; J. D. Pickering, $2\frac{1}{4}$ Indian; E. L. Buffington, $1\frac{3}{4}$ h. p. Indian, qualified. Time,

NINE TEAMS HAVE SIGNED UP

Nine Foreigners are Among the Number and Others are in Prospect—Arranging Six-Day Details.

Nine teams are now assured, that is actually "signed up" for the forthcoming six-day grind which will be held in Madison Square Garden during the week December 10th to 15th inclusive. These teams are:

Vanoni (Italy)-Breton (France).
L. Georget-E. Georget (France).
E. A. Pye-A. J. Clarke (Australia).
Reynolds-Benyon (England).
Rutt (Germany)-McFarland (America).
Hollister-Samuelson (America).
Walthour-MacLean (America).
Krebs-Rupprecht (American German).
Bedell-Bedell (America).

The other nine pairs will be arranged next week. Several deals are still in embryo, but all will be signed on Monday of next week. Other foreigners are coming and as Stol has been cabled for it is likely that he and Vanderstuyft, who is at present in this country, will again represent the colors of Holland and Belgium. Another team that may make the journey across the pond is the Wattelier Brothers of France, who have been riding strongly in long distance races, and Trousselier, who rode last year, is expected to come with another rider. Louis Darragon, who holds the title of world's motorpaced champion, has been engaged to ride, not in the grind, but in a match race with Hugh MacLean on the Saturday night preceding the beginning of the six-day struggle and to give exhibitions during the week; he will remain after the New York affair to ride in the races that are expected to be held in Chicago.

Until yesterday Root and Fogler, winners of last year's race, had not signed, the reason therefore being a disagreement about money matters between themselves and the promoter. Another team that will probably be secured is Walter Bardgett, at present enjoying life on a farm down in Kentucky and Pat Logan, of Boston. Moran, who was slated to ride with Logan, will, it is understood, form an alliance with Matt Downey. Urban MacDonald, the amateur, will ride but his team mate has not been selected, Halligan, Frank Eifler and Watson J. Kluczek all being spoken of, although the last named has hopes of pairing up with Charles Schlee, the New Jersey pursuit rider. "Big Bill" Canfield expects to ride but his partner is not apparent and Ashurst, Jacobs and about forty other riders are "sure" Powers will select them to ride in the gruelling six-days' struggle.

Arthur Vanderstuyft, of Antwerp, Belgium, who has ridden in the six-day race for the past two years as the team mate of Johan Stol, of Holland, arrived in New

York City on Thursday of this week. Vanderstuyft came unannounced and was only recognized when he was met on the street by the Bicycling World man. Vanderstuyft's reason for coming alone and so much in advance of the other foreigners is not known to many. This last year he did not ride in France and for that the Paris managers for P. T. Powers scratched his name from the list of eligibles. Vanderstuyft heard of this, told the Parisians he would not sail for America until Nov. 18th, then quietly skipped away and came to America to make his own arrangements. He will undoubtedly ride in the race with Stol, his former team mate. At present he is living in Brooklyn and training in the Prospect Park neighborhood. He said last night that he was going out for the gold cork that the Prospect Park Cork Pullers fight for each Sunday.

Chicago to Have Six-Day Race.

From reports that circulated this week, the correctness of which could not be verified, it was learned that P. T. Powers, who adds materially to his bank roll each year by running the six-day bicycle race in Madison Square Garden, New York City, will undertake to hold a six-day race in Chicago during the first part of March. It is to be preceded, the reports say, by a week of sprint and paced racing, the dates being February 22 to March 3 and the six-day race to follow. The reports were circulated by several six-day bicycle riders, who state that Powers has promised to take them to Chicago if they make good in the New York gri. Chicago has long been dead where cycling is concerned and if Powers succeeds in creating a renewed interest in cycling in the Windy City he will be proclaimed as the cycling Moses.

Referee Disallows Tardy Protest.

Ex-Fire Chief John Castles, who acted in the capacity of referee in the Roy Wheelmen's Inter-State Cycling Derby on Oct. 7th, will not allow the late protest which was lodged by several of the time prize winners against F. W. Eifler, who finished first, the charge being that he was pushed up to the bunch, after he had fallen, by a motorcyclist. As it was succinctly stated to the riders on the day of the race that all protests must be made to the referee within one hour after the finish of the race, Mr. Castles gives it as his opinion that the protest should have been made correctly within the given time and not after he had gone home.

Ruch Wins in Rushing Time.

T. B. Ruch, of Allentown, Pa., won the five-mile motorcycle race that constituted the curtain raiser at the automobile meet held at Bethlehem, Pa., on Saturday last, 27th ult. Ruch rode an Indian. The time was given out as 5:09¾, but watches must run slowly in Pennsylvania.

0:45¾. Final heat won by Hoyt; second, De Rosier; third, Domina. Time, 0:45¾.

Ten miles handicap—Won by B. A. Swenson, 2¼ h. p. Indian (2½ minutes); second, A. Heilborn, 4 h. p. Orient (3½ minutes); third, J. S. Nisbet, 2¼ h. p. Merkel (4 minutes); fourth, Domina, 3¼ h. p. Domina (2½ minutes); fifth, J. De Rosier, 4 h. p. Indian (scratch); sixth, E. L. Buffington, 1¾ h. p. Indian; seventh, F. C. Hoyt, 4 h. p. Indian (scratch). Time 16:39.

Unlimited pursuit race—Won by team composed of F. Domina, A. M. Whitmarsh and A. Heilborn; distance, 13¼ miles. Time, 19:25.

One mile consolation—Won by J. L. Pickering, Providence, 2¼ h. p. Indian; second, B. L. Barnes, 2¼ h. p. Merkel; third, K. R. Olsson, Providence, 2¼ h. p. Merkel. Time, 1:49.

Motorcycle Official Meets a Dog.

George W. Thompson, of Somerville, N. J., one of the traveling automobile license inspectors, will probably agree with some other motorcyclists that live stock, even including the canine species, should be kept off the public highways. Last Saturday Thompson was riding his motorcycle near Freehold, keeping an eye open for violators of the automobile speed law. It may have been that this watchfulness prevented him from seeing a large bird dog that lay asleep across his path. Anyway, he ran over the dog, was thrown heavily, injured himself and demolished his motorcycle. The only pleasant part of the accident was that he killed the dog.

Tall Tale from Mormonland.

Howard Merthrop, a young lad residing in Salt Lake City had probably what was the most exciting ride of his life one day last week. He was on his bicycle, near a place called Bountiful, when he encountered a herd of cattle traveling in the same direction, but completely blocking the road. He watched his chance and when he spied an opening between the bovines sprinted through. He stampeded all but one, a vicious steer, that took exception to the bold cyclist's procedure and he gave chase. The pursuit lasted for nearly a mile before the steer finally became exhausted and dropped behind. Spectators say that at times he was uncomfortably close to the sprinting cyclist.

Gold Watch Heads Prize List.

A ten mile handicap, to start and finish at West's, Valley Stream, L. I., is scheduled for Sunday, 11th inst. The Century Road Club Association is promoting the event. The club is offering a long list of prizes for such a short race and the place prizes, of which there are fifteen, are headed by a gold watch. A prize of the same nature is first of five prizes for time prize winners. Emil Greenbaum, 1745 Broadway, Brooklyn, is receiving entries.

SOME FACTS ABOUT PLATINUM

Why the Pure Stuff is Unfit for Practical Use—Alloys that Afford the Best Results.

There are some things in which the claims of a substitute to be "just as good" for the purpose, regardless of their seeming validity, are of little actual weight. And as an instance of the truth of this, few better illustrations can be cited than the use of substitutes for platinum in the contact points of ignition apparatus of any character. Wherever the flow of an electric current is interrupted by a contact making and breaking device of any kind, there is bound to be more or less arcing. That is, when the circuit is broken, the current bridges the gap momentarily and the larger the volume of current and the higher the voltage at which it flows, the greater will be this tendency. The capacity of a current to burn whatever interrupts its path is likewise proportional to its power. Consequently at points where a current is constantly interrupted something must be employed that is least subject to this destructive action and for this purpose nothing has been found to equal platinum.

As frequently happens where but one substance is found to possess all the properties that render it best adapted for the purpose, that material is hard to obtain and very costly. This is the case of platinum in a nut shell. It is the one substance that will withstand the burning effect of the arc or spark at the points of the contact breaker without either becoming badly corroded in a short time or vanishing altogether. But even this costly material is not wholly proof against corrosion or burning and that is the reason why the running of the motor may often be vastly improved merely by cleaning the contact points. That is, pure platinum will not corrode, but the metal in its pure state is very soft—about the hardness of copper, and in that condition it will neither possess the required durability for a contact point nor be proof against the extremely high temperature generated. For this reason the platinum is usually combined with iridium resulting in an almost glass-hard alloy.

In this connection there may be cited the case of a motorcyclist who had constant and annoying trouble with the points of the contact breaker on his machine and at the suggestion of a friend replaced them with pure platinum. Naturally he found that the running of the motor was vastly improved, and not alone the running, for the power developed was considerably increased. And doubtless any motorcyclist who will replace existing contact points of nickel or silver alloy with pure platinum will be similarly gratified with the result-

ing improvement, for in all probability this was at the root of the trouble in the case in question. But as already mentioned pure platinum comes high—in fact, it is worth a little more than its own weight in gold of the same fineness. Therein lies the temptation to substitute nickel or silver, or something even cheaper by making an alloy of either of these metals with materials that still further reduces the cost. While the result of using pure platinum leaves little to be desired in the way of performance on the part of the motor, it is not a good investment as the points will require replacing too frequently owing to its soft character. Ignition apparatus of the very highest grade made is fitted with contact points of the iridium-platinum alloy, not merely on the score of cost, but because experience has shown that there is nothing superior.

If it were practical or rather profitable to employ pure platinum points for the contacts, it would be done, at least by that section of the fraternity that neither considers the cost nor the trouble of more or less frequent replacement. But as it is neither, such a change merely represents an expedient that is occasionally resorted to by an experimenter merely from curiosity as to the probable result, or by one who has suffered the penalty of having his machine fitted with one of the cheaper substitutes originally, and has listened to the advice of another not wholly well-informed on the subject. Sooner or later he discovers that he has been misled and that while pure platinum is ideal on the score of efficiency alone it is not sufficiently durable to render its adoption desirable. It is apt to pit and burn away much too quickly to be satisfactory for any length of time. And even the platinum alloy is subject to the same ills though to far less degree and here proper care has much to do with both the service and longevity of the points.

They should not be cleaned any oftener than is necessary, for the emery cloth removes a certain amount of metal every time it is used so that excessive solicitude on the score of cleanliness instead of acting as a preservative of the points will bring about the necessity for their replacement in far shorter time than if they had been actually neglected. Proper adjustment is another point of prime importance not alone where the working of the motor is concerned but in its bearing on the life of the platinum contacts. Every coil has a certain point where the adjustment of the contact breaker gives the best result, by which is meant the hottest spark obtainable with a minimum consumption of current and the least tendency to arc at the breaker. A finer or coarser setting of the screw either results in poor working or in an unduly excessive current consumption and the latter invariably means battery troubles. Good points properly adjusted and only cleaned when necessary represent fully half the

problem of satisfactory ignition. Where the matter of cleaning is concerned, one of the troubles that the rider who is fond of resorting to the use of emery cloth on every occasion may bring upon himself, is getting the faces of the points out of true, that is, wearing them down more on one side than on the other, so that instead of making good contact over their entire faces when together they only touch at points, edges or ridges, according to the form in which his penchant for constantly scraping may have left them.

To Stop a Hole in a Tank.

One of the most exasperating troubles which may befall the motorcyclist on the road, is the puncturing of the fuel tank. Fortunately it is a circumstance of the rarest occurrence, yet come when it may, it need not lay up the machine, so long as it is discovered before the supply of gasoline has entirely run away. An ordinary tire patch laid over the affected spot will do the trick. Only, as gasoline dissolves the cement, it must be watched closely for signs of giving way. It may be renewed on occasion, however, and will usually last for a number of miles provided it is held in place by some sort of a bandage so that the weight of the liquid shall not force it away.

Why the Motor Should be Secure.

It is of the most vital importance in the motor bicycle, that the motor be securely fastened in its place, and axiomatic though it may be, it is doubtless a fact that the neglect of this essential condition frequently causes difficulties which are laid to other causes. Thus, a loose motor will tend to be drawn around by the drive with the double result of slackening off the chain and throwing the sprockets or pulleys out of line. In case of an accident brought about in this way it naturally would be supposed that the displacement of the motor was a result rather than a cause of the difficulty. Generally speaking, simplicity of the fastenings and their permanence, leads to a natural tendency to neglect them.

About Cooling the Motor with Water.

Probably the first treatment to appeal to the green motorcyclist as appropriate to relieve an overheated motor would be the use of a liberal quantity of cold water. But any motorcyclist who finds that the piston of his motor has seized through overheating and has any regard for the aforesaid motor will do well to take Bill Nye's advice on matrimony and "don't." It took some time for the piston to expand sufficiently to stick through lack of lubrication or running the motor at high speed too long on the stand, and that period will have to be multiplied by four or five if it is to be permitted to cool naturally.

"The A B C of Electricity" will aid you in understanding many things about motors that may now seem hard of understanding.

ROAD RACING ON A REGAL SCALE

It Happened in Australia and was a Gigantic Event—The Arrangements, the Enthusiasm and the Results.

With no less than 206 starters, 157 of whom finished, the Dunlop road race, the biggest annual event in Australia, was decided on September 23rd, and it was won by D. D. Riley, a man nearly thirty years of age, who started from the 28 minute mark. The distance from Warriambool to Melbourne, the course over which the race was run, is 167 miles, and Riley covered this in 8 hours 58 minutes 50 seconds, which is over an hour longer than that taken by the winner either of the three years previous. The difference was due to the heavy state of the roads, and the last 46 miles was over a greasy, sticky mixture of clay and loam, studded with loose stones originally intended for the road bed.

It is not so much the race itself that interests American cyclists as the preparations made for running it, and the care taken of the riders before, during and after the race. The race is promoted and managed by the Dunlop Rubber Company of Melbourne and the company provided hotel accommodations for the riders at Warriambool the night before. The next morning wagons were sent around to the various hotels to collect the street clothes of the riders, convey them to a special train, and were then sent to Melbourne to the city baths to await the riders at the finish. Here the finishers were treated to a turkish bath, also free. The train followed the riders in and those unfortunates who fell by the wayside through accident or other misfortune were picked up on the train and carried back to Melbourne.

The cost of conducting this Pullman car race was more than \$1,500. One of the chief items of this was \$500 for food, which included 8 pounds of bovril, 110 gallons of milk, 100 dozen bananas, 80 dozen oranges, 98 pounds of chocolate, 75 pounds of beef sausages, 30 bunches of celery, 24 loaves of bread, 22 pounds of sugar and 98 pounds of muscatel raisins. Upwards of 40 officials were required to distribute food at the several feeding stations, the first being at Camperdown (43 miles), where hot bread and milk were served out, together with a satchel of more solid edibles. At Mount Gellibrand (84 miles) hot milk was given the riders, followed by egg-flip at Winchelsea (94 miles). At Geelong (119 miles) more hot milk and bread, and another satchel of food were distributed, and milk was given ten miles on at Little Rivers, while at Werribee (145 miles) the racing men received a cup of hot bovril.

As illustrating the great interest taken in the race along the route it might be mentioned that several town councils had, in

their precincts caused the heavy mud to be scraped from the roads. In America deputy sheriffs lie in wait behind bushes to arrest the riders if they dare ride on the side paths to get out of the dust. The riders were required to finish the race on the same bicycles on which they had started and to ensure this they were officially sealed the night before.

Showing the interest taken in the great race, over 7,000 spectators gathered at the Hay Market, Melbourne, where the finish was and after the first half dozen riders crossed the tape the crowd became unmanageable, and the police had difficulty in clearing a path for the others to finish. The fastest time ever made over the course was in the race of 1903 when J. Arnst, now champion of Australia, rode from scratch in 7 hours 43 minutes. Winning such a race from scratch is a notable feat as the handicap limit is nearly two hours.

For winning the race Riley received a check for \$150 donated by the promoters, a gold medal valued at \$35 and \$25 from a manufacturer. Second and third men got bicycles and the next ten cash prizes. The fastest time was made by H. Mehrtens, in 8:53:52, from ten minutes handicap, and he received the road championship blue ribbon and a bicycle. In addition there were half a dozen bicycles given for special prizes. The times of the first fifteen men to finish are given in the appended summary:

Order of Arrival.	Name.	Hdcp.	Riding Time.	
			Min. H.	M. S.
1.	Riley, D. D.	28	8	58 50
2.	Birch, A. (N.Z.)	24	8	56 17
3.	Humm, A. (N.Z.)	24	8	57 0
4.	Day, L.	44	9	18 57
5.	King, W. A.	56	9	31 15
6.	Wiffen, A. T.	60	9	38 45
7.	Boyce, E. F. (N.Z.)	40	9	19 43
8.	Morris, W. A.	44	9	24 5
9.	Rogers, R. (N.Z.)	18	8	59 40
10.	Mehrtens, H. (N.Z.) ...	10	8	53 52
11.	Mitchell, A. W. G.	42	9	29 31
12.	Walker, W.	50	9	37 32
13.	Mallice, W. (N.S.W.) ..	52	9	40 19
14.	Disney, C. H.	40	9	49 52
15.	Guerin, W.	28	9	18 10
16.	Wren, P. E.	60	9	51 35
17.	Birch, E.	32	9	24 40
18.	Davis, G. W.	38	9	31 37
19.	Reynolds, C.	28	9	21 38
20.	Nixon, J.	54	9	49 46
21.	Jones, W. S.	40	9	35 47
22.	Picking, W. H.	44	9	30 10
23.	Anderson, L.	50	9	36 15
24.	O'Callaghan, H. G.	18	9	14 16
25.	Gaham, J.	50	9	47 6

Darragon Defeats Both Americans.

Louis Darragon, the world's motorpaced champion, who is to be brought to this country to ride motorpaced races and exhibitions during the six-day bicycle race, defeated Hugh MacLean and R. J. Walthour in an hour race at Paris on October 21st. During that time Darragon covered 48½ miles. At the finish MacLean was 675 yards behind and Walthour had lost 13 laps.

"CORK PULLERS" CHOOSING "KING"

Two Tilts at "Cork Pulling" Begins the "Ceremony"—Wilcox and Weintz Draw the Most "Corks."

Last Sunday, 27th ult., the Prospect Park Cork Pullers, of Brooklyn, held the first of its series of races to determine the title of "King Cork Puller" for the season and two events, the quarter-mile open and the five-mile handicap, were run off on Twenty-second avenue, that city.

The quarter-mile open was run over a straightaway course and it took two trial heats and a final to determine the result. In the first heat A. R. Wilcox won out over Louis J. Weintz, by half a length, Larry Hoppe and Herman Lind qualifying in the order named. Time, 32 seconds. L. R. Reynolds got the second heat by several lengths. Mike Schulman, "Papa" Rhodes and Harold Missmer followed in the order named. Time, 29 seconds. A "go all the way" resulted in the final heat between the eight qualifants and A. R. Wilcox, with the advantage of a 96-inch gear, managed to trounce Louis J. Weintz at the finish. Hoppe finished third, Herman Lind fourth and Reynolds crossed fifth. They went so fast that the timekeeper forgot to stop his watch when they crossed the tape.

Twenty-four riders faced the starter in the five-mile handicap, the scratch bunch being a very formidable one, with Weintz, Fisher, Wilcox, Raleigh, Lind and Ericson on the mark. The course was two and one-half miles and back to finish and a heavy wind slowed the riders considerably on the up trip. Mat Barnett, who started from the one and one-half minute mark, wasn't passed until the fourth mile, when Fred Warner, the crack flat floor rider went to the front and succeeded in strewing the course with a number of "corks." On the eighth Warner dropped back and Weintz went out. He unwound rapidly and although "Papa" Rhodes pedalled his chainless frantically he could not jump Weintz at the tape. Reynolds finished close up for third, Schulman was fourth and John Eubank got fifth. Time, 11:54½, which, if correct, is remarkably fast.

Just what prizes the winners of the series will receive is not known. The Cork Pullers have two press agents. One writes the *Bicycling World* that the winners will receive solid gold, gold filled and silver watches; the other states that the trophy will be a silver cup with gold, silver and bronze medals to the second, third and fourth men.

Tommy Hall, the English pace follower, attempted to break the world's hour record at Munich on October 21st, but after riding 70 kilometres, which he covered in 47 minutes 48¾ seconds, he gave up. Fifty kilometres were ridden in 34:53¾. Guignard's record for one hour is 95 kilometres.

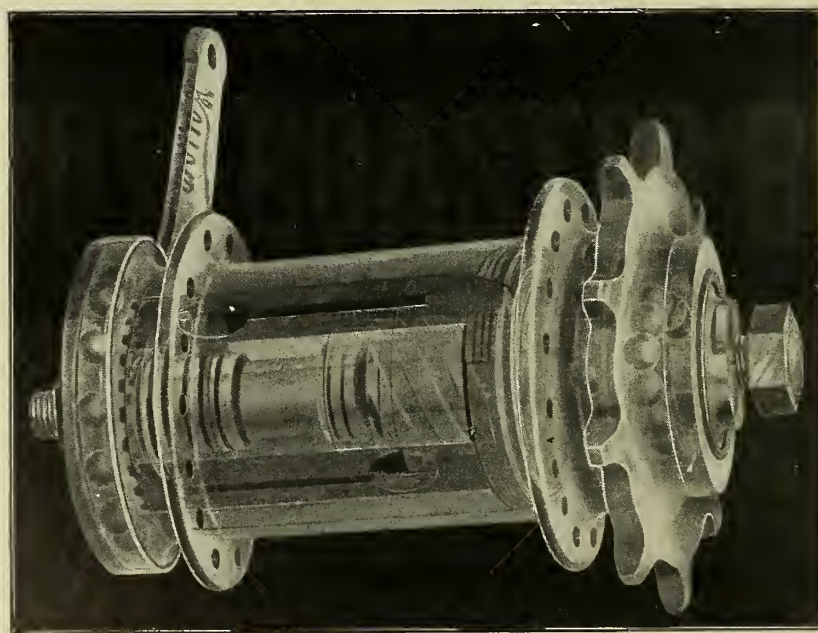
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"LONG MAC'S" LONG CAREER

Eleven Successive Years of Racing and Still
"One of the Best of 'Em"—How He
Doesn't Train.

The story of success in any line always carries with it more or less interest, and the harder the climb and the greater the number of obstacles overcome, proportionately the greater charm in the tale. Which leads to the point of this tale. Floyd A. McFarland, sometimes known as "Long Mac," "Lanky McFarland," "Elongated San Joséan," and a few other things is, with the possible exception of Nat Butler, who has long since lost most of the hairs on his head but is still riding a bicycle with the best of them, one of the most remarkable bicycle riders in America to-day. Just how old McFarland is he will never tell, but he confidentially admits that he has been riding since 1895, and during most of the time has always been on hand at the box office to collect his share of the long green. But this fact has not as much bearing on the story as the tale of his early struggles in the racing game, of the grind and the plug, and of the strivings and yearnings that were his while yet a would-be pedal pusher.

When McFarland first broke into the game he never tired of training, but time has since converted this like into intense hatred. "Mac's" chief reason for not training continually is that he prefers the cushioned chair or the tufted mattress. He pays little attention to the prescribed diet and the sermons on how an athlete should sleep, live and diet. He just makes it a rule to live and see that he enjoys life and eats three square meals a day. It may be remarkable, but the undisputed fact still remains that McFarland in his long career has never suffered a nervous breakdown or has had to call in the doctor for breaking training too soon. When one stops to consider, it is remarkable that McFarland has so consistently maintained his good form of riding. During his time good men and plenty have come to the front, made their spurt and died, but "Mac" still lives on.

As a raw-boned youngster Floyd McFarland was a member of the Garden City Wheelmen, of San Jose, Cal., a club that still is very much alive and one that has probably turned out more crack riders than any other club in the country. At that time people smiled at the idea of a fellow whose muscles seemed almost too weak to hold together his frail skeleton, "butting" into the racing game. The top-notchers took little notice of "Mac" except to crack a joke at his expense.

About that time McFarland got a paper route outside of San Jose, in which town he lived, and every morning he had to ride a distance of fifteen odd miles with a heavy bag slung across his back. After carrying

his papers McFarland paid a visit to the gymnasium and began figuring out a system of athletic training of his own. The result was that in the next club race Floyd won. Shortly after that he had always to be counted when road races were on the card. Shortly he began winning on the San Jose track and before long he was the bicycle marvel of Southern California. He was the pride of the town and the way his long legs, with piston-like regularity worked the pedals awed the spectators. Among themselves the riders frequently remarked while "Mac" was training: "That long-connected cuss is actually learning to ride a bicycle." Not long after that McFarland won the coast championship and established himself the king of California racing cyclists.

In both amateur and professional ranks he was the king. And so the raw-boned San Josean, like the great Alexander, decided to invade new fields. About this time a racing team, headed by Spooner, made a short visit to San Jose to do some exhibition riding. McFarland hung around Spooner and asked for a chance to go East with him as a member of the team. Spooner smiled like "Mac" does sometimes now, and told him to go and get a reputation first. "Huh!" grunted the local star, "I can beat anything on your team." He was given his chance that afternoon and from thirty yards McFarland won the race with ease, and never allowed the scratch men to tack onto his rear wheel. After the race Spooner agreed to take "Mac" East, considering that he would pay back his expenses as fast as he made them. The San Jose lad went and proved to be the only winner on the team.

At the close of the season McFarland returned to San Jose for the winter. While there Ziegler, that little fellow who toggled in a yellow suit and seemed like a ball of fire while riding, happened to pass through on his way home from Paris via the Orient. A match race was arranged. Ziegler led until the bell lap. On the stretch just as "Mac" was sprinting around him a little yellow cur ran across the track and the pride of San Jose bit the dust. Although Ziegler won the race he confessed McFarland his superior and would not sign up for another contest.

Since that time McFarland has been riding continually on American, European and Australian tracks, always getting a share of the cash. For the last ten years he has been a factor in the championship series and although he has never won the title himself, he has determined on more than one occasion who would wear the plumes. The wisest head that to-day directs a wheel, combined with a fast sprint that is somewhat of an enigma to all who see it, McFarland is one of the best all-round riders living. He shares in the holding of some six-day hour records that have stood since 1900 and seem destined never to be equalled or bettered. At present McFarland is

riding as well as he ever did, if not better, and the fact that last season at Salt Lake City, in more than one or two or three instances, after pulling Lawson all the way he beat out such fast men as Downing, Samuelson, Fogler, Hollister, Pye, Clark, Bardgett and a dozen others, shows that his composition must be of the kind that time does not wither.

Indoor Season was Inaugurated.

The indoor bicycle season at Buffalo, N. Y., opened last Friday night, 26th inst., when the Sixty-fifth Regiment Athletic Association held its initial set of athletic games. As usual the bicycle races proved to be the feature and in one of the events the flat floor record for five miles was broken. This happened in the five mile open when J. M. Tanner, of the Moonshiners, rode the distance in 13:30½, clipping 18 seconds from Fred Schudt's former record of 13:48¾. The race was run in two mile heats and J. M. Tanner, Al Mercer, W. E. Bauman, Gurney Schue, R. J. Hoover and Ed. Delling qualified for the final heat. The pace was fast from the start and Tanner kept well to the front until the next to the last lap, when he went in front and beat out Mercer by a narrow margin, Bauman getting third.

Ed. Delling won the two mile handicap from the 25-yard mark, and Mercer, from 45 yards, came in second. Tanner had 15 yards and finished third. Time, 5:08¾. In the one mile open William Robertson, of the Ariel A. C., beat out M. Koch and William Maisel, in this order. Time, 3:03. The summaries:

One mile open—Won by William Robertson, Ariel A. C.; second, M. Koch, unattached; third, William Maisel, unattached. Time, 3:03. Also ran—Tracy Kipple, C. R. Schweigler, C. S. Morton, A. T. Burke, H. J. Young and Gus Hart.

Two mile handicap—Final heat won by Ed. Delling, Ariel A. C. (25 yards); second, Al Mercer, 65th Regiment (45 yards); third J. M. Tanner, Moonshiners (15 yards). Time, 5:08¾.

Five mile open—Final heat won by J. M. Tanner, Moonshiners; second, Al Mercer, 65th Regiment; third, W. E. Bauman, Ariel A. C. Time, 13:30½, armory record. Also ran—Gurney Schue, R. J. Hoover and Ed. Delling.

Walla Walla Once More Awake.

Even the supposed power of the press is not sufficient to make one immune from arrest in Walla Walla, Wash. Some time ago the city council suggested that the police take measures to enforce the bicycle ordinance to the letter of the law. P. C. Holland, publisher and manager of an evening paper, was the first to get himself "pinched," and incidentally this was the first arrest in that city for violating the bicycle ordinance in nearly ten years. Holland was found guilty of riding without a lighted lamp.



The Racycle

shown in the photograph displays but one of the many claims advanced for it; viz., ENDURANCE. It has many others.

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HOW HE EVENED THE SCORE

The Laugh was on the Motorcyclist this time, the Joke Giving Him Some Pretty Bad Moments.

"Did I ever tell you how I got back at those fellows for putting up that joke on me with the motorcycle cop?" asked one of a group of cyclists.

"No? Well, I didn't have anything like as much fun at their expense as they did at mine, though I think I have been getting even with the fellow who was responsible for hatching the scheme and putting the cop wise to taking me in.

"If you remember, the whole thing grew out of a bet on my part to stand a dinner for the crowd if I couldn't scorch by any cop or any number of them on a bicycle just as fast as I could possibly push and not be juggled for it, the bet to be decided in my favor if I did it twice straight or two out of three times. The first time everything went my way. It was just as I had said it would be for although I almost ran over a cop by mistake, none of them even took after me.

"The fellows holding the other end of the bet were stumped. They saw I was going to have things all my own way, so the second time they cooked up this scheme. It must have been several weeks afterward and someone had quietly passed the word around so that there would be a good-sized audience on hand. And there was, and what is more both the cop and the crowd got a full run for their money, for the peeler's motorcycle gave out coming up a long hill and it took him two or three minutes to get it going again.

"Of course, he caught me. Could you bet it very long with a hot copper coming after you lickety split," indignantly asked the slang expert who was telling the story of one of his audience whose query as to the ending of the unequal race savored somewhat of a slur on the former's riding ability. Whereupon the questioner subsided and the raconteur again took up the thread of his tale.

"I made good for two miles or more, but I stood about as much show as a water bug in a barrel of insect powder. The cop nabbed me as if he was capturing an escaping murderer and the crowd came up and had their inning at my expense. And I was afraid that the bill was going to be a fiver in addition, but when the cop thought the game had gone about far enough and we were getting too near the station house for safety he let me go again.

"No, the bet has never been paid and that was two years ago.

"I suspected the fellow that put up the trick on me and as soon as I was sure of it I decided to get even. It was a long time before I could think of anything that would do until both of us joined the motor-

cycle brigade and since then I've been getting back at him every now and again, though to tell the truth the tricks I have been putting up on him are more in the way of a liberal education in motorcycle management than they are practical jokes.

"For instance, the last time we were out—there were four of us altogether—we managed to take the batteries off his machine without his knowing it and afterward looked on and made believe help him while he tinkered the machine to get it going for almost half an hour and kept him in suspense as to how he was going to get his machine home for another half hour, when we offered to tow him by turns. He doesn't know the first thing about his machine and he's as thick as they make 'em so it takes a long while to get things through his head, so after fussing with the plug and the carburettor until he was tired, he gave up in disgust.

"We each took one of the cells and shoved it into our hip pockets. It made a mighty uncomfortable pants tightener but we were willing to endure that for the good of the cause and our man never caught on although we must have looked as if we either were carrying stuffed clubs or a twenty horsepower gun. One of the crowd made believe borrow a piece of old clothes line that had been brought along already fixed for the job so that it wouldn't last too long and we hitched two of the machines together.

"The rope played its part to perfection by giving out on the middle of a steep hill and half scared the victim to death because his machine started back again before he realized what had happened. And every one of us knew only too well, so we took particular pains not to look back. Just as we were about to disappear over the top of the hill he put up an awful holler and we tried to look as surprised as we could. After he had pushed his machine up to where we were we sat down on the side of the road to play the last act. We were a long way from home and two or three miles from the nearest station so we had our man where we could scare him good and plenty.

"We looked at the rope and one look was enough, for it was so rotten it was a great wonder it had held as long as it did. Our victim suggested tying it again and we tried. Then two of us pulled and yanked it apart in a new place without much trouble. That was the end of it and he looked pretty miserable at the prospect. We had no real rope with which to tow him and the property piece was done for so it was up to us to finish the game without letting him know, for we had no intention of rubbing it into him to the extent of letting him find his own way out of the difficulty. We sat down and quizzed him by turns as to what he knew about the machine and asked him if he was sure that he tried everything about it properly before we had undertaken to tow him, in the mean-

time taking good care not to let him go back to tinkering the machine itself. After we had worked that to the limit, I suggested that he take my machine and with one of the others go down the road in the direction we were traveling to see if there wasn't some repair shop within reaching distance, while the other two of us waited behind to guard the machine.

"As soon as they were out of sight, having previously taken the precaution to get the cell that the third man had stowed in his hip pocket, we slipped them back in the case and started off after them. The member of the party who had the victim in tow was on to the game, of course, and kept going at a rattling good pace, audibly wondering meanwhile where there could be a repair shop, which he knew couldn't be found for miles on that road and suggesting hard ways for the other fellow to get himself and his machine home without our assistance. He was for turning back time and again but our man wouldn't let him. 'There must be a shop somewhere near here,' he would encourage him with, and so they kept on until we got tired of the whole business and caught up with them. We consoled the victim by telling him that there was absolutely nothing the matter with his machine as it had started the first kick. And that was true, too. Fortunately for us we have different machines than his so we pile on the agony that way, too."

Position to Prevent Side-slip.

A very striking testimonial to the importance of balancing the rider's weight well between the wheels, as a precaution against skidding, is this contribution from a cyclist:

"For three years I owned a bicycle of the pedal species," he says, "with an L pin allowing the saddle to come exactly over the pedals, and during that time had not a single suggestion of side-slip. Last year I bought a new cycle (still of the old-fashioned type, unfortunately), in which the saddle was almost directly over the back wheel, and in a month had come two bad 'croppers'—in the first of which I left two front teeth at the foot of a lamp-post.

"I then, for experiment, had a new L pin fitted, and the merest novice could not fail to note the difference in security.

"When I can afford to run a motorcycle, I shall take good care to see that the seat is placed well between the wheels."

Long Tour in Seldom-Toured Region.

C. T. Anderson, formerly of Scranton, Pa., but now of Jacksonville, Fla., has just completed a long trip by motorcycle, from his present place of residence to his old home. His actual running time was twenty-three days, and his route took him as far west as Louisville, Ky., and southern Ohio, thence to Buffalo, N. Y., and to Scranton. His daily average was over a hundred miles a day and for five hundred miles he carried a man on a tandem attachment.

Gendron Bicycles

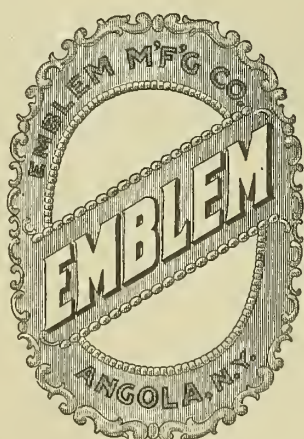
are the matured product of twenty years of continuous improvement and painstaking workmanship. Their worth is real. Their general appearance, style and finish is unexcelled. In perfection of bearings they are unapproached.

Apply for their sale now before your neighbor gets it.

1907 CATALOGUE NOW READY

GENDRON WHEEL COMPANY, = = Toledo, Ohio

To the Trade



In deciding your line of bicycles for the coming season, will it not be well to consider how they are made?

Emblem Bicycles

are made by co-operative labor. Will you appreciate this?

Workmanship, Finish and Thoroughly Good Bicycles our aim.

Emblem Manufacturing Co., Angola, N. Y.

DISTRIBUTORS: { JOHN T. BILL & CO., Los Angeles, Cal., for the State of California.
BALLOU & WRIGHT, Portland, Ore., for Oregon and Washington.

BETTING AT BICYCLE RACEMEETS

Where Bookmaking Prevails to an Unwholesome Extent and the Evils That Have Ensued.

While the stench of the betting ring has never marred or detracted from bicycle race meets held in America, or caused a howl because of "fixed races"—although it must be acknowledged that some races have been well planned before they have been run—simply because a section of the rules of the National Cycling Association explicitly states that "open betting at all meets is prohibited," it is, however, interesting to note the effects of betting upon cycle racing in other countries and what would be the inevitable result if tolerated in this country. That the harmful practice has obtained vogue in Great Britain was not generally known but that the evil exists and to an unwholesome and threatening extent is disclosed by a contributor to *Cycling*, who says:

"The National Cycling Union has set itself to the laudable task of purifying the path in earnest. Following the lead of the Amateur Athletic Association the governing body of cycledom has grappled with the question of illegitimate payment of expenses to amateurs, and the result is now a matter of common knowledge. I have no fault to find with the National Cycling Union in its decisions, and I do not consider it necessary to cry out for an immediate alteration in the rules simply because certain persons choose to break them; but I do contend that such malpractices as the suspended riders have been adjudged guilty of pale into significance beside the greater evils resulting from the presence of the bookmaker on our athletic grounds. Will the National Cycling Union extend its sphere of operations in this direction? Already it has a regulation in its books prohibiting betting at any meeting held under its rules, and threatening sports promoters with the refusal of a subsequent permit if betting is allowed; but I believe this rule is almost, if not quite, a dead letter. At any rate, betting is rampant at nearly every country meeting, and seldom is any effort made to suppress it. The inevitable result of such a state of affairs is that the sport has become tainted with discreditable practices. Large numbers of races, instead of being honestly contested, are arranged beforehand in the dressing tent. Roping is often done so openly and clumsily that the spectators cannot possibly be deceived, and they leave the ground disgusted with a sport that is merely a burlesque of racing.

"It must be remembered that betting has a far more sinister influence upon the cycle track than on the turf. In the latter case the man who bets does receive a fairly rea-

sonable show for his money. The odds offered against any particular horse represent, with a certain amount of fairness, that animal's chances of success. Consequently, you may 'back your fancy,' if you are so minded, at something like a fair speculative price, which, if you select a rank outsider, may be worth as much as 100 to 1. At a cycle race meeting no such customs prevail. 'Evens on the field!' is the war cry of the book and pencil brigade, and the natural consequence of having to bet on such one-sided terms is that roping and similar tactics are indulged in to a much greater extent than prevails in horse racing circles.

"For the benefit of those who are not acquainted with the precise meaning of

ented scratch man, may have decided to 'stand down,' either because he is in league with the bookmakers, who have made it worth his while to ride according to their wishes, or because he and his fellow-competitors have decided that Jones should win, owing to the fact that the latter is known to be a duffer and can consequently be backed on slightly better terms than the others. Frequently have I seen men in obviously poor circumstances, who were unable to resist the intoxication of the gambling habit, place their money on a man who I knew quite well had no intention of winning. If only the poor dupes who thus fling their hard-earned wages away could see what goes on behind the scenes, it would soon cure them of any desire to bet.

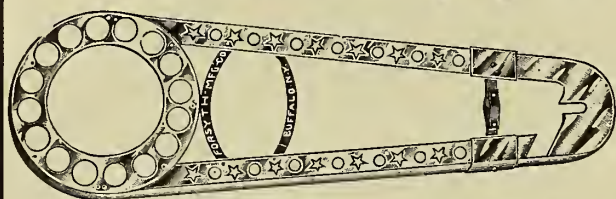
"It must not be supposed, however, that every man who bets, even on such ridiculously unfair terms as 'evens' in a field of eight or nine, is merely a fool. The man who assists in arranging the placings before the start of the race, and who bets accordingly, is undoubtedly a rogue. He regards the 'bookie' as his legitimate prey (that is, unless he is working in the latter's interests), and it is always a struggle between two gentlemen as to who is the most successful thief. Meanwhile the sport is degraded, the decent-minded section of the public becomes disgusted, and promoters of athletic gatherings bewail their diminishing gate receipts. I was at a mixed sports meeting in the provinces last autumn. The 'bookies' had filled the ground with their discordant clamour all the afternoon, and at length we reached the last event on the program, a mile flat race. There were a score or more of competitors, and some of the betting fraternity wanted more liberal terms than 'evens' in consequence of the number of starters. They did not mind giving the bookmaker seven or eight chances to their one, but they objected to him having nineteen to one. 'Wot do yer say?' asked one of the 'bookies' appealed to. 'Yer want hoss-racing odds, do yer? Well, just wait 'arf a mo'. Yer say there are twenty starters—so there are; but how many tryers are there? Half a dozen, eh? Oh! yes; we know these hamatoors, we do.' Unfortunately cold type cannot reproduce the sarcastic emphasis placed on the word 'hamatoors,' or the remark would appear still less complimentary. But if amateur sport has sunk so low in the scale, this has been mainly due to the corruption consequent upon evil associations. Eliminate the gambling element and the sport will again become pure and honest. In itself it is clean, manly and invigorating. What can better fit a youth for the stern struggle of life than the fierce joy of fighting out a desperate finish up the straight with an equally determined rival? Cycle racing is still comparatively in its infancy as a national sport. Cannot we save it from contamination with one of our greatest national evils?"



NEW YORK BRANCH: 214-216 WEST 47TH ST.

'evens on the field,' I will explain this mystic phrase, which is only too familiar to the ears of the habitués of athletic sports grounds. Let us suppose there are eight competitors to ride in one heat. The backer decides to put 5s. on Brown, the scratch man, and deposits that sum with the bookmaker, who backs the field against Brown. In other words, if Brown happens to win, the 'bookie' pays back 10s.; if any of the other seven men win, he retains the money. It is strange that anyone should be so foolish as to give a bookmaker seven chances against his one, yet thousands of bets are made on these terms during the season. Of course, the bettor almost invariably loses if he relies merely on his knowledge of 'form' to guide him in selecting a likely winner. Even if the race is run fairly and squarely, a burst tire, a broken chain, a cropper at one of the turns, or any one of a dozen other unforeseen accidents may happen to upset his calculations. But what if the result has been prearranged? Our friend Brown, the tal-

FORSYTH SPECIALTIES.



Full Chain Guard with All Connections.

Made in sections and riveted together, giving enough elasticity to avoid the "twang" of a one-piece guard. Adjustable to stretch of chain and to differences of length between centers of axles.

FORSYTH MANUFACTURING CO.,

"Handy things to have about the house."

We also make

**Mud Guard Fittings,
Sprocket Guards,
Metal Hand Brakes**
and other Specialties.

Buffalo, N. Y.



Half Guard with All Connections.

Notice the method of attaching front connection. Enough adjustment to meet the angle of any frame; a little feature all our own. It counts. These guards are just a little better than any others. That's why we are still making and selling lots of them.

Hudson

WHY?

Hudson

Q Why are "Hudson" bicycles the most popular? Is it because they are equipped with D & J hanger? But why are the D & J hangers so popular? They have never been so extensively advertised as other hangers and their cost has been so high that other manufacturers use them only when compelled to.

Q We are getting out a book entitled "Why" for fifty of the best answers to the above. We will send copy of the book entitled "Why" in connection with a souvenir that will come in handy.

1907 Hudson Bicycles

WILL LIST AS FOLLOWS:

Model "A" . \$50.00 Model "B" . \$40.00 Model "C" . \$30.00

THE HUDSON MANUFACTURING COMPANY

Main Office and Factory, HUDSON, MICH.

WE DISTRIBUTE TO AGENTS FROM THE FOLLOWING POINTS:

New York, New York Sporting Goods Co., 17 Warren St.
San Francisco, Cal., Baker & Hamilton. Worcester, Mass., J. W. Grady, 14 Austin St.
Denver, Colo., Scott Supply & Tool Co. Atlanta, Ga., Alexander-Elyea Co.

Hudson

Hudson

Schrader Universal Valve.

(Trade Mark, registered April 30, 1895.)

NOTICE.

Manufacturers of Bicycles, Jobbers and Dealers:

In order to facilitate the obtaining of

**PARTS of the
Schrader Universal Valve,**

We have concluded to sell parts only to the general trade.

Parts 99-1, 99-2, 99-3, 99-4 may be had from all makers, or from A. SCHRADER'S SON INC. Price List sent on application.

**SIMPLE AND
ABSOLUTELY AIR-TIGHT**

Manufactured by

A. SCHRADER'S SON, Inc.

ESTABLISHED 1844.

**28-32 Rose St.,
New York, U. S. A.**



WHEN THE BELL TINKLED

It Caused a Lot of People to Suspect Each Other by the Small Boy Held the Joker all the While.

"The Broadway express car in the subway was just comfortably filled with passengers. They all sat looking at each other and over each other and around each other, for it was at the time of day when nobody but the confirmed reader looks at the newspapers," says the New York Evening Sun.

"Then it happened. The throbbing noise was pierced with the shrill 'ting-a-ling, ting-a-ling' of what everybody at once knew emanated from an alarm clock. Yes, it was quite plain that it was one of those instruments of torture for early morning hours. Then it stopped. Then again came the sound, 'ting-a-ling, ting-a-ling, ting-a-ling.' Then it stopped again. Evidently it was one of the intermittent variety. 'Bing,' it went again, 'bing, bing.'

"By this time everybody was looking at everybody else, for the source of the sound was entirely uncertain. 'Ting-a-ling, ting-a-ling,' it went again, but the noise of the train gave no one a chance to figure out just where the insistent jingle and jangle came from. At first everybody looked at a man who had a big bundle in his arms. 'Ting-a-ling, ting-a-ling,' went the clock. Maybe it was in that bundle, everybody thought, and they smiled with satisfaction at the discovery. Meanwhile, the man with the bundle fidgeted and squirmed, knowing that he was the focus of all eyes.

A sudden lull of the noise, however, turned the attention of the car to another passenger. It was quite evident that the big package did not hold the offending mechanism. 'Ting-a-ling, ting-a-ling,' it went again.

"This time it was a big woman with a shopping bag—one of that kind which looks as if it might be a reduced hammock and which can hold most anything. The fat woman had enjoyed the search for the miscreant until then.

"'I haven't got it,' her face said just as strongly as if she had said so in words. Then she became stubborn. 'I just won't be annoyed,' announced her feet as plainly as could be as they were planted more firmly on the floor.

"Those in the car, however, soon discovered that the fat woman didn't have the clock. The glances began to shoot backward and forward. 'I wonder who has that clock,' they plainly said. Then they roamed up and down the length of seats and everybody with a bundle got his or her smile.

"'Ting-a-ling, ting-a-ling,' chimed the little clock, 'bing, bing. Get up!' it said plainly. Then everybody knew the man at the end of the car, next to the door, had it. 'It must be in that case,' everybody

thought all at once. So all eyes were focussed on him. Frantically he pushed his case behind him and, pulling a paper from his pocket, began to read. He hid himself completely behind the pages. Then everybody grinned, nodded knowingly and a few winks passed around.

"'Ting-a-ling, ting-a-ling,' went the clock 'bing, bing.' Just then the express came to the Seventy-second street station and the noise died down. 'Ting-a-ling, bing, bang, br-r-r-r, bz-z-z-z. Bang! Bang! Bang!'

"Everybody looked up startled. The eyes all focussed at the end of the car. There was a boy picking up a bicycle bell which he had been playing with and evidently had accidentally dropped. He grinned delightedly.

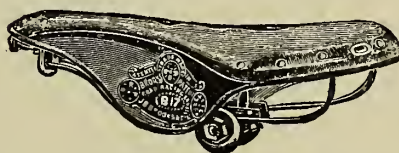
Always There is a Demand

for goods of the superlative quality. There are many who seek them; there are many more who would buy them if they were but called to their attention. This is as true of

Cycle Saddles

as of practically everything else. In saddles, the English

Brooks



is the name that ever has designated the world's best. "Not to know the Brooks is not to know how good a saddle can be made," is an old saying and a true one.

YOU can sell not a few of them if you but make the effort—and you'll find it well worth while.

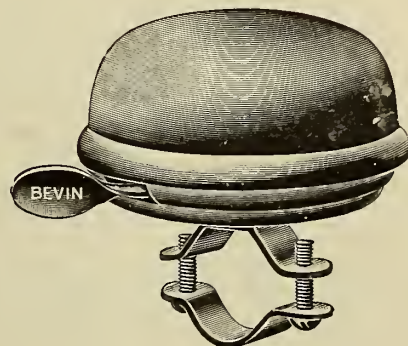
QUOTATIONS ON REQUEST.

JOBBERS SUPPLIED.

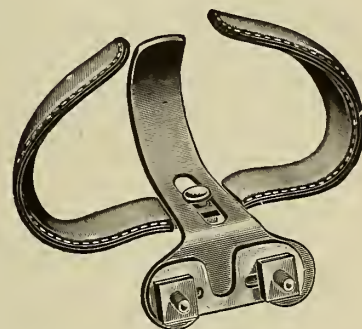
Hendee Mfg. Co., Springfield, Mass.

THE "Good Old Standbys"

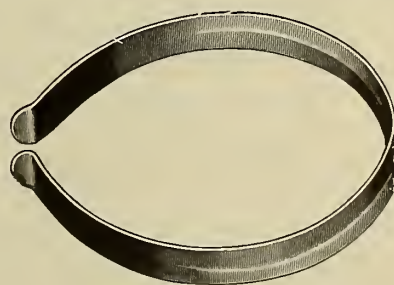
BEVIN Bells



BEVIN Toe Clips



BEVIN Trousers Guards



Prices as interesting as ever.

Bevin Bros. Mfg. Co.
EASTHAMPTON, CONN.

Continental Rubber Works Suit.

We desire to notify the trade that our suit against the Continental Rubber Works of Erie, Pa., under the Tillinghast Patents is still pending, and that purchasers and users are equally liable for infringement.

The following manufacturers are licensed to make and sell single tube tires under the Tillinghast Patents:

Hartford Rubber Works Co.

Diamond Rubber Co.

Fisk Rubber Co.

Pennsylvania Rubber Co.

Indiana Rubber &
Insulated Wire Co.

Goshen Rubber Works

Lake Shore Rubber Co.

B. F. Goodrich Co.

Goodyear Tire & Rubber Co.

Kokomo Rubber Co.

International Automobile &
Vehicle Tire Co.

Morgan & Wright.

Boston Woven Hose
& Rubber Co.

SINGLE TUBE AUTOMOBILE & BICYCLE TIRE CO.

THE BICYCLING WORLD and MOTORCYCLE REVIEW

FOUNDED 1877

Volume LIV.

New York, U. S. A., Saturday, November 10, 1906

No. 7

TO RELIEVE DEALERS' DISTRESS

Prospect That Irsome Enforcement of Gasolene Regulations will be Lessened—One Bar Already Raised.

In New York City, more particularly in Manhattan borough, those dealers who are handling motorcycles, have not had a wholly happy time of it during the current season. Not that the demand for the machines has not been gratifying but because of the activity of the Bureau of Combustibles.

Inspectors from that Bureau, if they have not made the dealers' lives miserable have at least kept them in a state of constant apprehensiveness. They have been unexpectedly dropping into the motorcycle shops, especially those located in dwelling houses, at all hours and as often as two or three times a week, always on the scent for gasolene. In some instances they have "laid down the law" in such despotic fashion that one case at least culminated in the form of an order that no motorcycle the tank of which ever had contained gasolene must be permitted on the premises. Previously the fiat had gone forth that not even one drop of the fluid, not even for repair purposes, must be carried across the threshold. Most embarrassing situations have ensued which have required that repairs and tests be made on the sidewalk, and always the dealers and repairmen have been kept on tenter hooks and in fear of arrest and heavy fines.

The state of affairs was called to the attention of President Betts of the Federation of American Motorcyclists, who, it so happened, chanced to be in one of the stores when the famous or infamous order banishing even the motorcycles with empty tanks was issued. He had the matter brought to the attention of Franz S. Wolf the head of the Bureau of Combustibles, who promptly ruled that the inspector who

gave that particular order had exceeded his authority.

"We have no more to do with the empty tanks than with empty milk cans," was Mr. Wolf's statement, which lifts that bar.

Following up the advantage Mr. Betts since has called Mr. Wolf's attention to certain clauses of the regulations which clearly seem to allow cycle dealers of all sorts to carry gasolene in quantities of less than one quart without permit and without payment of the \$10 fee exacted for such a permit, which quantity, however small, will immensely relieve the situation by permitting indoor repairs and by restoring the dealers' peace of mind. Pleading press of business due to the fireworks attendant on election, Mr. Wolf has requested additional time to consider the presentment but in doing so he has assured Mr. Betts that he hopes to make "a reply that will be satisfactory to you."

Surre Returns from the Coast.

W. J. Surre, the "live wire" man of the Corbin Screw Corporation, has returned from his visit to the Pacific Coast. He found that reports of the prosperous state of trade in that part of the country had not been much exaggerated and his order book showed the result. The new Corbin two-speed coaster brake, which he exhibited for the first time, excited a lot of interest which was of such a substantial nature as to bring the demand ahead of the supply.

Pope Opening New Office in Chicago.

The Pope Mfg. Co. has leased quarters in Chicago at the corner of Clark and Monroe streets—in the heart of the downtown business district—and will open a sales office at that address on Dec. 1st; the place is now being refurbished for the Pope occupancy. The location will prove a great convenience to the large jobbers who visit Chicago and who to see the Pope people now must make quite an out of the way journey to Franklin street.

BIG PROFITS OF BRITISH MAKERS

Humber Makes Marvellous Recovery and Rudge-Whitworth Earns \$265,000—Accessory Makers Prosperous.

Of all the British bicycle manufacturing companies, the two in whose earnings there is probably the most widespread interest are the makers of Humber and Rudge-Whitworths—the former about the oldest in the Kingdom, the latter about the largest producer and of bicycles that show the effects of Americanization.

Undoubtedly there is no one of the annual reports that demonstrates the complete recovery that the British bicycle industry has achieved since its recent years of depression as that of the time-tried Humber concern. For three years beginning with 1900, the average annual profits were \$45,000, and in 1904 there came near being a balance on the wrong side of the ledger, the figures being but slightly over \$5,000. For the year ending August 31st, last, the net profits of the company reach the very respectable total of \$530,000—a sum that is equivalent to earnings of 53 per cent. of the capital.

The strength of the concern is further shown by the fact that its annual report reveals among other items bills payable to the extent of some \$150,000 and stock on hand both finished and in course of making to the value of \$500,000, beside which \$250,000 of its capital is invested in Consols and other dividend paying stocks. In spite of the fact that the plant was enlarged by the addition of another factory and the facilities increased, the demand for Humber bicycles and cars rendered much overtime work necessary during the year.

In the case of Rudge-Whitworth, the net profits for the past year not only show a substantial increase over those of the preceding year but a comparison of the figures for the three years past indicates that this

company has shared proportionately in the recovery of the industry. For instance, at the end of the season of 1904 the profits were but \$36,000, a year later they had risen to \$230,000 and for the year ending July 31st, 1906, they reached high water mark at \$265,000. The showing made by a number of the other companies during the same period is likewise favorable and also of interest. For instance, for the year ending August 31st, 1904, the New Hudson Cycle Co., Ltd., only showed a profit of about \$40,000. During 1905 increased business brought this up to \$138,500 and for the present year it rose to \$152,500. The net profit earned in 1904-1905 exceeded by 137 per cent. the showing of any former year since 1896, from which some idea of the business of the past year can be gained.

The same thing is true of the Triumph Cycle Co., Ltd., of Coventry, and the Enfield Cycle Co., Ltd., of Redditch, among others. In the case of the first named the profits rose from \$58,000 last year to \$115,000, while the Enfield report is even more favorable, the net profit having risen from \$63,000 to \$142,500. As is naturally to be expected in view of the prosperous condition of the cycle manufacturing trade, the makers of accessories have been equally fortunate. As an instance of this there may be cited the report of Joseph Lucas, Ltd., the leading British lamp maker, for the past three years, which shows that the annual net profit rose from \$55,000 in 1904 to \$74,000 in 1905 with a further increase to \$97,000 in the year just past, while in the case of J. B. Brooks & Co., Ltd., the leading saddle makers, though no figures are given, it is said that the past year's earnings are sufficient to pay a dividend of 5 per cent. on the preference shares and of about 6 per cent. on the ordinary shares.

Closes Branch and Allots Agencies.

Pursuing its new policy of marketing its goods exclusively through agents, the Pope Mfg. Co. has discontinued the last of its branch houses, the one in Washington, D. C. The agencies for the several brands of Pope bicycles has been, therefore, split up as follows: Columbia Bicycle Co., Columbias and Ramblers; C. E. Miller & Bros., Tribunes; H. W. Higham, Jr., Imperials, and B. L. Wrenn, Monarchs.

The Retail Record.

McPherson, Kas.—N. Fields, sold out to O. W. Johnson.

Fairbault, Minn.—Walter Scott purchases half interest in Fairbault Cycle Co., Mr. Thomas retiring; new style, Auto Supply Co.

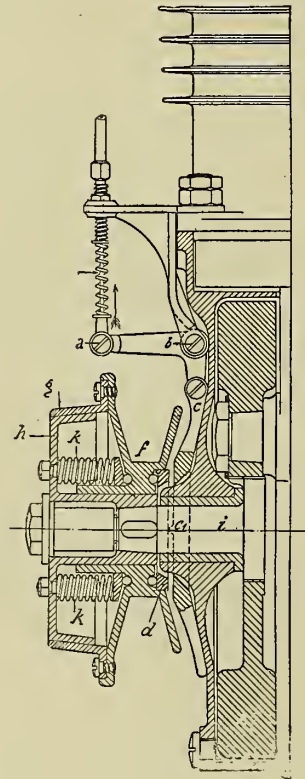
Makers to Meet Next Wednesday.

The Cycle Manufacturers Association is due to meet in Chicago on Wednesday next, 14th inst.; the session will occur in the Auditorium Annex.

CLUTCH FOR MOTORCYCLES

Features of One of the Best Known Continental Devices—How it Operates and is Applied.

Up to the present time the subject of change speed gears for the motorcycle, together with the other accessories entailed by the adoption of a means of using more than one speed, has received little or no attention in this country, but it is evident to anyone who has given the matter a thought that it is something that is bound to come in the end, particularly when side



The crankshaft of the motor is represented by i, to which as indicated, the live or male portion of the cone clutch h, is held fast by a nut. The belt pulley f, running on two ball bearings is virtually an idler, to which is attached by means of machine screws the female portion of the clutch g. It will be noticed that the cone h also carries two helical springs k which tend to keep it in engagement with g. In the position shown the power would be transmitted to the rear wheel by means of the belt over f, just as if no clutch intervened. Although shown here on a belt driven machine the principle would be identical where a chain is used except insofar as the latter would require alterations in the clutch itself to adapt it to the driving sprocket. The remainder of the mechanism consists of a lever c, pivoted at b and carrying a collar or yoke surrounding the crankshaft at cl. A bracket held in place by one of the usual crankcase bolts provides a support for this lever. It is attached to the end of the operating cable at a, which as already mentioned terminates in a small hand lever. By pulling the latter and dropping it into a notch marked "halt," the springs k are compressed and the cone h is thrown out of contact with its socket g, thus disconnecting the pulley f from the crankshaft and allowing the motor to run idle.

The manner of taking advantage of this device in getting under way is as follows and it will be apparent that it is a method that is susceptible of considerable improvement at the hands of the average rider. The machine carries a stand as part of the baggage carrier placed over the rear wheel and by pressing a clip this drops into place to support the driver without further trouble. The clutch is engaged as shown in the accompanying illustration so that pedalling starts the motor. The latter is then disconnected by placing the hand lever in the stop notch, the stand is flipped back into place and a start is made by remounting and letting the clutch into engagement gently, the frame of the machine itself being so low that the rider may support it meanwhile by placing his feet on the ground. A much simpler as well as far more convenient method of starting would be to pedal the machine as an ordinary bicycle with the clutch out of engagement and as soon as a little speed was attained permit the latter to engage easily, the motor immediately taking up its cycle.

As will be appreciated both from the illustration and the accompanying description, the device is extremely simple, any wear on the conical faces of the engaging members being compensated for by tightening the retaining springs. When the operating lever is pulled out of the notch marked "halt" these springs cause the clutch to engage automatically while the hand lever at the same time falls into a second notch marked "marche" no further attention being necessary.

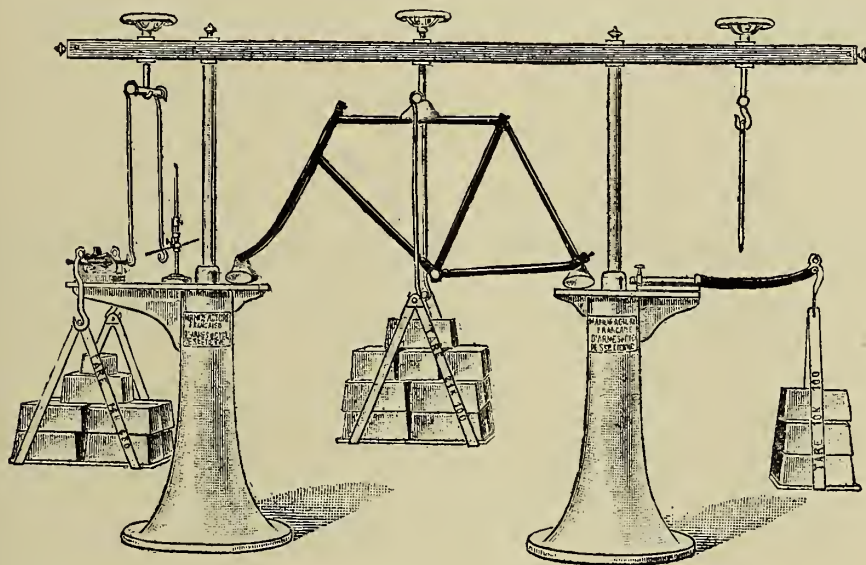
cars, forecars, tandems and other double machines obtain more considerable vogue.

The demand, on the Continent in particular, for machines of powers justly considered excessive here has made such a course imperative for the foreign maker so that provision for starting the motor independent of the pedalling effort of the rider is not novel on foreign built machines. One of these which forms an interesting illustration of the manner in which this is done is afforded by the Adler—a machine of German make. As will be plain upon reference to the accompanying illustration which depicts the device in section and also shows the manner of its attachment to the engine, the mechanism consists of a simple form of friction clutch operated by means of a flexible cable terminating in a short lever on the handle bar, though as a matter of fact it may be placed wherever most convenient for the rider, all other adjustments considered.

HOW THEY TEST BICYCLES

An Interesting and Instructive Process in Vogue in a French Factory and What it Suggests to Riders.

Although the construction of the bicycle has become so simple that it is readily comprehended by anyone, yet the question of its strength, which is by far in excess of that of any other structure of equivalent weight, and indeed, is greater in proportion to its load than probably any structure in the world of machines, is one which is quite beyond the average comprehension.



That it will stand enormous shocks, will bend almost like a spring and return again to its former arrangement is known, but the precise methods by which the formation has been evolved and the manner in which the strains to be met are divided up among the various members, is more or less a mystery. Not the least interesting feature of the matter, is the manner in which the strength of a new frame may be proved. This naturally differs greatly in different factories, but in its most elementary form is very simple indeed and consists in applying certain loads to the various points which are known to be frequently exposed to shock in use noting upon removing them whether or not there has been any permanent distortion.

In the accompanying illustration is seen a testing machine such as is employed in the immense factory of the Manufacturers Francais d'Armes et Cycles, of France, makers of the Hirondeille bicycle. As will be noted it consists only of a bed fitted with various means of supporting the frame in a dismantled condition while the weights used in testing its strength are applied. The hand-wheels seen upon the top of the upper truss and the rods depending from them are used to support the parts while the load is being applied, the weight

coming more and more upon the parts under test as the screws are relaxed until they carry the full amount. After a given period of stress in this way, the weight is removed by turning up the hand wheels and afterward by callipers and other measuring instruments, the exact alinement of the frame and the condition of its various parts are observed with care.

"The frames to be tested with their steering forks, rest on two rotatable platens which permit the assemblage to distort under the action of the load," says La Chasseur Francais, in describing the process. "The trial load is one of two hundred and fifty kilograms (550 pounds) applied at the center of the upper tube. Neither the fork

nor the frame develop permanent distortion under this load. The fork bends easily, the frame yields evenly, but when the load is removed, the parts assume precisely their original form, as is proven by means of callipers and other instruments of precision.

"The steering fork is submitted to an individual trial which develops its resistance to the transverse strains which it is sometimes called upon to resist, as for instance, when the front wheel receives a shock. The steering tube is fixed horizontally at two points and the test load which amounts to eighty kilograms (176 pounds) is applied at the extremities of the blades. The fork supports this load without any permanent deformation.

"The test of the crank hanger is interesting in that it tests the entire crank hanger group, the bracket, axle, cranks, keys, and the pedals themselves. The group entirely assembled is rested on the platen of the testing machine supported by a block of wood which conforms to it in shape. The test load which is of two hundred kilograms (440 pounds) is applied, equally on the two pedal spindles. The deformation of the group is simply elastic, and the keys do not develop the slightest amount of play.

"It is to be noted that these loads of

eighty kilos for the fork, two hundred and fifty kilos for the frame, and two hundred kilos for the crank hanger only produce distortions which are temporary, but which return to their former shape under the elasticity of the metal. In order to produce complete rupture, probably quite double these amounts would be necessary. This would give:

880-1100 pounds for the frame
290- 350 pounds for the forks
770- 880 pounds for the crank group.

"You cyclists who throw your front wheels into holes in the road, who never avoid the largest stones in the track, who insist on mounting sidewalks, who try your best to ruin the trees and break down terraces, meditate over these figures and draw from them some sort of deduction as to the speed most favorable to your particular sort of exercise.

"If you want to dispose of your machine, take the precaution to choose your obstacle with care. A wall or a rock will do perfectly well—one of those good rocks, such as Roland, nephew of Charlemagne, moved with his powerful shoulders to frighten the Turks.

"If ever you encounter one of these rocks go at it with good courage. But do not count on making a breach, as Roland did with his Durandel. Even though the metals which they compound to-day are perfectly comparable with the best sabaturn of Charlemagne's time, if you try to break it you will not succeed. Your machine will flatten itself out, but do not be surprised.

"Just get up again, for in seeking out a rock, you have found a whole ledge. Get up, then, count your arms and legs, and if you still have two good ones of each sort, thank your machine which you will never ride again, alas, and which has neither frame nor forks of any value, but which in folding up over the obstacle, like an elastic rubber ball, has helped you to avoid a most disagreeable shock of surprise.

"A rigid bicycle with a diagonal bar across the frame, and reinforced forks, might have resisted the shock without any doubt, but there would have been nothing left of you under the circumstances. Thrown out over your handle bars, you would have struck your own head against the obstacle, and you would have paid the cost in your own person."

When the Flame Begins to Flicker.

When the flame of an acetylene lamp begins to flicker, showing the presence of wet gas, the strainer should be examined to see whether it is clean and dry, and if not, renewed. Failing this, it is possible frequently to insert a piece of blotting paper between the carbide and the metallic disc which rests upon it, thus drying the gas as it leaves the base of the container. In generators which are fed from above to the top of the carbide, this method is, of course, out of the question.

A Demonstration of Our Claims of Durability of the National

A few days ago we received from one of our old customers a National, which he had sold in 1896, and which had been in continuous service ever since.

He sent it to us as a sample of National durability.

After it had been ridden over 17,000 miles, its owner decided to try for the 300 and 400 mile records, and succeeded in breaking both of them.

This bicycle has been ridden over 50,000 miles and contains the bearings which were sent out in it originally.

The cups and cones to-day are as bright and free from blemish as when new.

It's good for another 50,000 miles, but we will keep it as tangible evidence of results from using good materials.

There are thousands of Nationals just like this one.

Nationals to-day are made from the same quality of materials.

We have always been believers in good bicycles, and as every machine we make carries our trade mark, we cannot afford to cheapen their construction.

Are YOU Riding or Selling a Bicycle of the Sort?

NATIONAL CYCLE MANUFACTURING COMPANY

BAY CITY, MICH., U. S. A.

**Comfort
Resiliency**

and 45 per cent. Saving in Tire Maintenance are the essentials
of the ever reliable

Fisk Bicycle or Motorcycle Tires

Like all Fisk products, they have a Quality and a Construction that is exclusive—real merit—through and through—that makes their distinct superiority apparent.

WILL OUT-LAST TWO OR THREE OF OTHER MAKES

THE FISK RUBBER CO., Chicopee Falls, Mass.

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Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should
Address us at P. O. Box 649.

NEW YORK, NOVEMBER 10, 1906.

"Enclosed find draft for \$2. Please renew my subscription for the *Bicycling World* and *Motorcycle Review*, which expired with the number issued October 23rd. I take a number of motorcycle publications, both foreign and domestic, but for practical information and real worth your paper has them all beaten to a standstill."—Clyde M. Clough, Davenport, Iowa.

Plain Words About Law-breaking.

In the minds of some of those responsible for or interested in the abortive attempt to conduct a hundred miles motor paced record breaking trial on Long Island last Sunday, there appears to lurk a suspicion that the *Bicycling World* is opposed to that sort of thing; they do not appear to relish the reference we made to it, to which they attribute the interference of the legal authorities.

For the sake of these men and of any others similarly minded, we may say that there is no reason whatsoever why suspicions regarding our position should exist, for there is nothing doubtful about it. The *Bicycling World* is openly and unalterably

opposed to that form of premeditated law-breaking and if the reference we made to it assisted in its suppression we are sincerely pleased and grateful. We promise reference of the same nature and more of it to any mistaken enterprise of the sort that may be undertaken in the future.

The occasion makes it fitting to remark that if the young men and the older ones who are concerned with bicycle racing on the roads of Long Island do not temper their enthusiasm with discretion and common sense, their own folly speedily will put an end to their sport. Custom merely has given it a courtesy-license and abuse of the privilege is the surest means of bringing a revocation of the license. The time may come when similar privilege may be granted to motorcycles and other vehicles but that time is so far distant it scarce is worth remarking. To encourage anything of the kind at this time—to mix with bicycle sport a bunch of open mufflers tearing holes in the atmosphere at an unholy pace is about as good a way as can be conceived to court accident and arrest and to bring down public wrath on cyclists and motorcyclists alike. It is not short of astonishing that in view of the hue and cry raised over automobile scorching, the bicycle racing on Long Island has not been scotched. The men in bathing suits or underclothes, who have, Sunday after Sunday, dashed over the roads and through the towns of that part of New York, should thank their lucky stars that they have been permitted to do so without paying the penalty prescribed for that sort of thing. They should "sing small," "lay low" and otherwise so comport themselves that the unusual privilege may not be withdrawn. It requires but a solitary protest rightly made and rightly lodged to render the bathing suits useful for bathing only; and it were well that the truth be realized.

When, several years ago, motor paced record trials were the fashion in those parts we did our part in suppressing them. And we do not mean that that form of law-breaking shall be revived if anything we may say can prevent it. If it is necessary that two or three men go to jail to put an effectual end to it, the sooner they go there, the better for all concerned. The enthusiasm or ambitions of two or three men or two or three dozen, must not be permitted to sacrifice or endanger the privileges or best interests of the great body of cyclists and motorcyclists; if the over ambitious

enthusiasts will not see it in that light they must be made to see it. That's all.

Meaning of Motorcycle Inspection.

There is no need to preach to the manufacturer the importance of absolute uniformity of production. The maker who can build a single successful machine, must be able to build others like it in all points of excellence, and to an extent limited only by the demands of the market. The more the principle of exact reproduction is carried out in detail, the greater will be the success of the producer, and for reasons which need no demonstration. How it is to be accomplished, depends largely upon the nature of the product and the general conditions governing not simply its production, but its subsequent use. Safe to say, however, more depends upon the final testing and inspection, than upon any of the earlier and more incidental steps. The greater the number of parts composing the finished piece, the greater the percentage of liability to error in its makeup and action, and this fact in the case of such intricate mechanism as is embodied in the motor bicycle, for instance, calls for a rigidity of supervision and an amount of care in overlooking the completed machine, which is of the most vital importance to the maker. With the systematization which has distinguished the American manufacturer above all others in the matter of large production, this has come to be a fine art and one the value of which should be understood. But it is to be feared that some of the makers fail to realize the full value of such a course.

In shops where the amount of production is not great enough to warrant the employment of expensive automatic machinery and close systems of incidental inspection and testing, the greater burden falls on the assembler. Hence the finished machine is more the product of individual skill, and its quality depends quite as much upon his fidelity as upon the success of the designer. If he is disposed to slight his work, or to sacrifice perfection to the god of time, the result will be a machine which sooner or later is bound to develop some sort of weakness, which at the outset was glossed over or in some other way concealed. It is the maker's part to see that each machine leaving his plant is in good condition, ready for the road, and in every way fit for the work to which it is to be assigned. If every machine bears the stamp of the individual who put it together, there is bound to be a

lack of uniformity among a number, and bound to be an exception here and there which is below the standard.

The work of the expert tester counteracts this tendency in large measure. With his experience and knowledge of the needs of the mechanism it requires but a comparatively small amount of his time to compensate for the "personal equation" of the workman, and largely make up for the lack of uniformity which prevails. His quick eye detects a loose nut here, a flaw there, which the user might be weeks in discovering; his trained ear detects the slightest knock due to lax adjustment, the least error in action; his acute senses note whether the power is as it should be and the response of the motor as ready as it might rightly be expected. The services of such men are of almost inestimable value to the manufacturer. They save him many a petty disgrace which otherwise might do him immeasurable injury, they guarantee that uniformity which makes for success in all manufacturing enterprises.

Nor is this all. The work of the inspector serves as a check on the accuracy and faithfulness of every individual connected with the work. It shows how advantageously the time recorded on the pay roll is outlaid, where there are losses, and how well even the designer is serving his interests. In this reflex sense, the tester becomes the confidential agent of the maker accountable to him alone for the fidelity of his work, and revealing the efficiency of the entire establishment. By ensuring the uniformly satisfactory action of every machine sent out, he ensures the highest possible benefit to the trade, and by checking the work of the plant, he protects the inside interests which are so vital to the business of production. In short, rigid inspection means satisfied customers and satisfied customers means a proud reputation and more customers. The maker who sends out, say, 1,000 machines which he absolutely knows are right will make more money and earn a better name than he who ships 2,000 machines which he hopes and thinks are right.

That the world "do move" was never better illustrated than by the increase of cycle speed. In 30 years, more than 33 miles have been added to the hour record. In 1897, 15 miles, 1,480 yards stood as the best performance; to-day the record is 59 miles 86 yards.

Carleton Walworth Nason

Carleton Walworth Nason, president of the New York Motorcycle Club, died at his home in New York City, on Sunday last, 4th inst. He had been stricken with pneumonia on Saturday of the previous week. Few members of the club were aware of their president's illness and his death therefore proved a shock. Only two evenings before he was stricken he had presided at the club's meeting, at which he tendered a trophy to be styled "The President's Cup" to be competed for by teams selected by the road officers. He was then in rare good humor. The first that was known of his sickness was when on the Thursday following he sent word that he was too ill to meet the committee which was drafting the rules for the contest.

In many respects, Mr. Nason was an exceptional man. Fifty-seven years of age, tall, spare, silver-haired and dignified, the head of an immense steam-fitting and plumbing supply business bearing his name, of independent means, a member of several wealthy and exclusive clubs, he yet found pleasure in the company of men much younger than himself and, so free from "bounce" was he, in serving as an official of the comparatively modest motorcycle club, in which he took keen interest. Several times his purse was opened to it for generous sums and for the day of his funeral, he had planned to serve as a checker for the club's century run which had been programed but which, as a mark of respect, was postponed until to-morrow.

Mr. Nason was among the pioneer motorcyclists. For several years he rode a tricycle and rode it well. Then he invested in a motor car and joined the Automobile Club of America. He found no pleasure in either, and induced to invest in a motor bicycle, his interest in motorcycling and the New York Motorcycle Club rekindled and led to his election as its president, several members of the old Manhattan Bicycle Club, of which he was president some years ago, being numbered among the members. He had been solicited to become the head of the Federation of American Motorcyclists but had asked that such action be deferred at least a year. There is small doubt that he could have had the office merely by saying the word. He spent the summer and early fall aboard his palatial yacht from which he had little more than returned. Ashore, the motorcycle was his hobby which he often remarked "helped keep him young." Already he had placed his order for a 1907 model. The man and his personality and position in life were

such as loaned tone to the "young cause."

Mr. Nason was a member of the New York and Atlantic Yacht Clubs, the Eastport Country Club, the Society of American Engineers and the General Society of Mechanics and Traders. He was a widower without children. After funeral services in New York on Tuesday, his remains were taken to Cambridge, Mass., for interment, a large wreath of autumn leaves and roses forming a last tribute from the New York Motorcycle Club, which, with the "cause" for which it stands, is the poorer for the loss of such a gentle, generous spirit and kindly nature.

The Sheriff's Message and its Effect.

H. H. Hintze, the young New Yorker, who, on Sunday last, expected to "burn up" one hundred miles of Long Island road and tear through a number of towns behind a relay of barking motorcycles, in an effort to break the motorpaced record for that distance, did nothing of the sort. Although warning had been given, Hintze, a pack of motorcycles and a considerable number of "invited guests" put in an appearance at Valley Stream ready to flout the law. The sheriff of Nassau county was not personally "among those present" but he was there in spirit. He sent word that if any motorpaced business was attempted, there would be "something doing" on his part. The message was very short but it was quite sufficient.

How the Vegetarians Do It.

T. Owen, of Owesbury, the veteran English bicycle rider, who is a vegetarian of 69, stated at the recent vegetarian conference in Manchester that for some time he has made it a rule to fast twenty out of the twenty-four hours of each day. He allows himself two meals a day, and these consist invariably of a little bread or biscuit, fresh dried fruits, and a few nuts. To consume these he takes from forty to forty-five minutes, and to each mouthful he administers from fifty to a hundred bites. Mr. Owen claims that on this diet he is able to cycle considerable distances and undergo severe mental strain without the least fatigue.

Where Firemen Use Bicycles.

Marseilles, France, has formed a corps of cycling firemen, six cyclists being attached to each brigade in the city. The cyclists carry two boxes, a folding ladder, two lamps, six axes, a shovel, and a ram, to say nothing of a box of small tools, and a case containing remedies for asphyxiation. It is stated that they are usually first at conflagrations and that it takes them less than one minute to begin operations.

Pig Roast Marked Anniversary.

The Ed Hagenbuch Motorcycle Club of Allentown, Pa., last week celebrated its first anniversary. The commemoration took the form of a pig roast.

MORE TEAMS ON SIX-DAY SLATE

But not all of Them are "Sure Things"—
The Great Guignard Coming Instead
of Darragon.

During the week several additional teams for the six-day bicycle race, to be held in Madison Square Garden, New York City, the week of December 10th to 15th, inclusive, have been engaged, bringing the total to fifteen teams, which is almost the limit. The teams that practically are assured are:
E. F. Root, New York City, and Joe Fogler, Brooklyn.

R. J. Walthour, Atlanta, Ga., and Hugh MacLean, Chelsea, Mass.

C. L. Hollister, Salt Lake City, and W. E. Samuelson, Salt Lake City.

A. W. MacDonald, Boston, and J. B. Coffey, Boston.

Matt Downey, Boston, and James F. Moran, Chelsea, Mass.

John Bedell, Newark, N. J., and Menus Bedell, Newark, N. J.

Norman C. Hopper, Minneapolis, Minn., and Hardy K. Downing, San Jose, Cal.

Pat Logan, Boston, and either Walter Bardgett, Buffalo, or J. Frank Galvin, New Milford, Conn.

Arthur Vanderstuyft, Belgium, and Johan Stol, Holland.

Leon Georget, France, and Emil Georget, France.

Petit Breton, France, and Carlo Vanoni, Italy.

Walter Rutt, Germany, and Floyd McFarland, San Jose, Cal.

Ernest A. Pye, Australia, and A. J. Clark, Australia.

Harry Reynolds, England, and J. S. Benyon, England.

The English team of Reynolds and Benyon is not yet assured, but the promoter is in communication and expects to sign them in a few days. Vanderstuyft arrived here last week and Pye and Clark, the Australians, are in Salt Lake City, where they remained after finishing the season there. The other foreigners will sail from France November 24th, on La Lorraine, reaching New York about a week before the race.

Summed up, the foreign aggregation appears more formidable than that which rode here last year. Vanderstuyft, Stol, Breton, Vanoni are not unused to six-day plugging, New York style, but Walter Rutt, who is teamed with McFarland, and Pye and Clark and the Georget Brothers, will have a chance to prove their mettle. The Georget brothers gained some valuable experience when they won the first six-day race held in France, some two months ago, but Pye and Clark and Walter Rutt are novices at long distance grinding.

The American teams are better matched this year than they were last winter. Of course, Root and Fogler will be the "stars," by virtue of having won the race of 1905,

but there are plenty of other headliners. Walthour always was a favorite and his team mate, MacLean, has been riding better abroad than he did here last year. Hollister and Samuelson look like a formidable pair and that the Downey-Moran combination will be popular goes without saying, for Downey was the hero of last year's race. Coffey blossomed out as a star at pace following and may surprise some of the old-timers like his present partner, young MacDonald, did last winter, but they are not counted upon as the winners. Krebs and Rupprecht are training hard over in Newark, but Krebs will have to do better than he did last year to get a piece of the money; this will be Rupprecht's first try at the game. No six-day race would be complete without the Bedell brothers, for although they have never won the big race, they are instrumental in steering a lot of Long Island dollars into Powers's coffers. The team of Hopper and Downing looks fair but not very dangerous and if Logan rides with Bardgett that team ought to make a good showing.

Darragon will not accompany the foreigners across the pond, to ride in motor-paced races; his place will be taken by a much better man—Paul Guignard, the bearded Frenchman who rode over 59 miles in one hour. Darragon, because he won the title of world's champion and the honor in France, got an idea that his services were worth about six times what Powers was willing to pay for them, and so he will stay in France. Guignard will be a better card anyway and is down to ride Walthour a ten mile match race on the Saturday night preceding the six-day race. Another feature event will be a five mile race between Hugh MacLean and either Vanderstuyft or McFarland. The quarter-mile amateur championship will be run on that night and the amateurs and professionals will compete in other events.

Tricar Wins at Milwaukee.

Fast time and the entrance of tri-cars in track competition marked the two club races held by the Milwaukee Motorcycle Club at the State fair grounds track, Milwaukee, on Saturday last, 3d inst. The motorcycles with side cars attached made their appearance in the three mile novelty handicap, with six starters; the three-wheeled machines were allowed two minutes over the others and the Harley-Davidson tri-car, driven by Walter Davidson, walked away with the race in 5:30. Ralph Sporleder, on a two-wheeled machine, finished second in 5:48. William Villoweck, Arthur Kellerman, Dr. P. B. Churchill and Arthur Morgan were among the "also rans." The other event was a five mile open which was won by Davidson in the fast time of 6:17. Davidson covered the third mile in 1:14, which is the fastest time that has been made in the State for the distance, although "intermediate times" are not generally recognized.

KRAMER REFUSES TO MEET LAWSON

Resists a Tempting Offer and Now May
Not be Given a Chance to Earn Easy
"Exhibition Money."

Is National Champion Frank L. Kramer afraid to meet Iver Lawson again or is he just getting lazy? is the question that followers of the racing game will ask when they learn that Kramer has refused a good offer to meet the former world's champion in a series of match races to be run during the New York six-day race.

P. T. Powers, the promoter, offered a purse of \$1,500 to be divided as Kramer and Lawson agreed, for a series of matches during the forthcoming Madison Square Garden carnival and while Lawson was willing, Kramer refused, saying that he could not get into condition, and that he did not care about riding, anyway.

If these two riders could be brought together in New York City it would certainly prove a pleasant diversion from the tiresome six-day grind. There are some that, although Kramer trounced Lawson in three straight seats in Salt Lake City last August, still maintain that Lawson is Kramer's superior, and ten times that many who believe that the Swede would have no difficulty in beating him at Madison Square Garden, where half the race consists in getting the pole. Lawson is a quicker starter than Kramer, and he demonstrated that fact fifteen months ago when he got the pole from Kramer five times in a one mile race, then got mad because Kramer said "foul" each time, and apparently let the East Orangeman win out as he pleased.

Several persons closely identified with the sport have been trying to bring Kramer and Lawson together again in New York City and they had almost succeeded when Kramer "bucked." They are still trying to get him to agree to ride Lawson, and if he does not accept it is a ten to one shot that he will not be engaged to ride exhibitions during the six-day race.

Lawson is still in Salt Lake City and writes that he will remain there if the match with Kramer is not arranged, and take his first rest in five years. It was expected that Lawson would go to Australia but this he says he does not intend to do and will rest during the winter if he does not come to New York.

Just who started the report cannot be ascertained, but the riders now in Salt Lake City have, during the last week, been discussing the report that a new saucer track would be built at Casino Park, that city. The location is ideal but with the Salt Palace saucer running the proposed new track would not get a franchise, so the promoters would undoubtedly find themselves shy of racing men when it comes time to arrange the program.

"CORK PULLERS" STILL AT IT

Weintz Places Most "Corks" to His Credit in Last "Pulling"—Gold Corkscrew as Special Prize.

Last Sunday, 4th inst., on the Twenty-second avenue course in Brooklyn, the Prospect Park Cork Pullers held its second series of races for the club championship and the half-mile open and one and two-mile handicaps were decided. The races were well contested, "Sir Walter" Raleigh, Louis Weintz and Fred Warner each getting firsts. Although these races were designed primarily for Cork Pullers and are to decide who shall wear the title of "King Cork Puller," the unique Brooklyn organization does not bar any one from competing, relying upon their own members to outspurt any outsiders that may happen to compete.

The half-mile open last Sunday was run in three trial heats and a final, three riders qualifying in each heat. Fred Warner won the first heat, John Eubank and Carl Ericson crossing the tape to qualify in the order named. In the second heat Wilcox got over the line first and Raleigh and Fisher finished second and third, the latter out-sprinting Weintz and thus shutting him out of the final. Hoppe, Barnett and Reynolds qualified in the order named in the third heat. The final was closely contested and resulted in a blanket finish, Raleigh beating out Fisher by inches and Wilcox getting third by a narrow margin.

Twenty-seven riders started in the one mile handicap, which was won by Weintz from scratch. Raleigh got second, Wilcox third and Fisher fourth. In the two mile handicap, Fred Warner, with an allowance of 10 seconds, came down the line a winner with Ericson and Lind, who had started from the same mark, hanging on for the finish.

The final race, a 10 mile handicap, will be held to-morrow (Sunday), and the club is offering a special prize of a solid gold club emblem—a corkscrew and cork with the letters P. P. C. P. engraved on the cork—to the rider that is first over the line. The nearest to being "king" is L. J. Weintz, with 14 points. The standing of the others who aspire to regal honors, is as follows: A. R. Wilcox, 12 points; Walter Raleigh, 12 points; Franklyn Fisher, 5 points; Fred Warner, 5 points; Carl Ericson, 5 points; Larry Hoppe, 5 points; H. E. Reynolds, 4 points, and Herman Lind, 3 points. The summaries of last Sunday's races follow:

One mile open—First heat won by Fred Warner; second, John Eubank; third, Carl Ericson. Second heat won by A. R. Wilcox; second, Walter Raleigh; third, Franklyn Fisher. Third heat won by Larry Hoppe; second, Sam Barnett; third, H. E.

Reynolds. Final heat won by Walter Raleigh; second, Franklyn Fisher; third, A. R. Wilcox.

One mile handicap—Won by L. J. Weintz; second, Walter Raleigh; third, A. R. Wilcox; fourth, Franklyn Fisher; fifth, Larry Hoppe.

Two mile handicap—Won by Fred Warner (10 seconds); second, Carl Ericson (10 seconds); third, Hermann Lind (10 seconds).

Cops Pinch Two "Cork Pullers."

Besides having more churches than any other city, Brooklyn has some of the fastest bicycle "cops" of any municipality. Usually they confine their efforts to chasing down automobile "scorchers," but on Wednesday night of last week one of them—"Mile-a-Minute" Murphy—went after a couple of racing cyclists who were out on the path training. They gave the man who once rode a bicycle faster than any other man living a chase for a while but he eventually caught them. Perhaps if Arthur Wilcox and Walter Raleigh, they were the "culprits," had known that it was Murphy who yelled to them to stop, when the started down the cycle path at a twenty-mile an hour gait, Wednesday night without lamps, they would have stopped then and there, but they were not blessed with this knowledge and thought they could easily "pull the cop's cork." It cost them \$5 each the next morning in police court. Incidentally, other cyclists have begun to worry for these were the first arrests that have been made in Brooklyn on this charge for several years.

MacLean and Mettling Home Again.

Hugh MacLean, of Chelsea, Mass., and Louis E. Mettling, of Jamaica Plains, Mass., arrived in Boston, Thursday afternoon on the Saxonian, having sailed from Liverpool, on October 29th. Quite a delegation of Americans journeyed from Paris to Liverpool to bid the Americans "bon voyage." Among them were "Daredevil" Schreyer, "Bobby" Walthour, Nat Butler, Hoffmann, the pacer, and the Reese brothers. MacLean will train at Revere Beach until Walthour arrives, when the pair will go to Atlanta, Ga., and hold race meets and at the same time get into shape for the six-day race. Both Mettling and MacLean had a profitable season abroad, particularly the latter and his last notable race was won two days before embarking for this country when he defeated Nat Butler, Walthour and Darragon. Mettling made several motorpaced records while he was abroad.

Set up New Insurance Dodge.

As a reason for refusing to pay the usual compensation to a member who was injured in a bicycle accident, a Scotch mutual benefit society set up that cycling is "an unlawful practice." But the county court decided otherwise.

FOR CHICAGO'S SIX-DAY GRIND

Option on Coliseum Obtained and Other Tentative Arrangements Made—Decision Rests with the Riders.

Chicago is to have a six-day bicycle race this winter if present plans do not miscarry and, as the Bicycling World intimated last week, the date of which has been tentatively set for the week of March 3rd to 9th, inclusive. Preceding the six-day race, more than a week of sprint and paced racing will hold the boards, beginning on the evening of Washington's Birthday, February 22nd. The Coliseum, which is the only building in the Windy City large enough for the purpose, will be the scene of action and P. T. Powers, who promotes the annual Madison Square Garden grind is the man who will tempt the Chicago shekels.

"Yes, I intend to run a six-day race in Chicago this winter, if my present plans do not miscarry," said Mr. Powers to the Bicycling World man this week, when approached upon the subject. "I have secured an option on the Coliseum and expect to close the deal and pay a deposit very soon. The plans for a track and the arrangements for seating have already been drawn and I think I can put in a better track there than is possible in the Garden. My option on the Coliseum is from February 17th to March 10th, and the plan is to open on February 22nd with a week or so of sprint and paced racing and then to hold a six-day race on exactly the same plan as the one held annually in New York City.

"I will put up my proposition as regards prizes and so forth to the riders, and if they are willing to ride for what I am willing to offer them, practically the same teams that have been engaged for the New York race will compete, with the possible addition of a Chicago team and other western riders. If the riders do not accept my proposition I will forfeit the deposit that I will have paid on the rental of the Coliseum."

The proposed race is already beginning to be talked of in Chicago and a company of local sporting men have undertaken the formation of a syndicate to finance the scheme. Among those interested are James J. Callahan and George McGurn, both prominent in baseball circles and therefore closely allied to P. T. Powers.

First New Year's Race is Carded.

The Prospect Park Cork Pullers, of Brooklyn, is the first organization in the field with a New Year's Eve bicycle race. The affair will be called a "race" and not a "run," as has been the title bestowed upon similar affairs in previous years. Although it is some time from now until January 1st, the club is getting together a goodly list of prizes which they class as "up to value stuff and not junk."

NOT ALL ARE ROAD HOGS

Experience of a Cyclist Which Shows the
Automobilist in the Light Seldom
Accorded Him.

While to judge from the average of the daily newspaper accounts of the treatment accorded cyclists and other road users by the automobiling fraternity, it would appear that as a class they are a heartless and callous lot who make it a practice to disregard the rights of others on the highway, and never under any circumstances are willing to stand by the results of their own folly, nor to "see through" any damage which may be caused by their machines, a recent occurrence demonstrates, as really is well known, the cases of the sort which obtain the greatest amount of publicity are in reality the unpleasant exceptions which prove the opposite rule.

Ernest Grupe, secretary-treasurer of the New York Division of the Century Road Club of America, was the lucky victim, who really suffered because of his own folly in indulging in the dangerous practice of "hanging on" to an automobile. In company with a number of other century men, Grupe undertook to run from New York to Bridgeport, Conn., to be the guests of the Lafayette Wheelmen, of that town. The outward trip passed off without noteworthy incident, but on the return a heavy head wind was encountered which so overpowered some of the riders that they took shelter behind a passing automobile and caught pace from it into Stamford, Conn. When near Stamford, the machine suddenly and without warning slowed down, and Grupe, who was close behind was thrown against it, getting a nasty fall and sustaining a number of painful bruises. The bicycle was badly twisted, the front tire being ripped off almost entirely, and the wheel being partly dished and twisted.

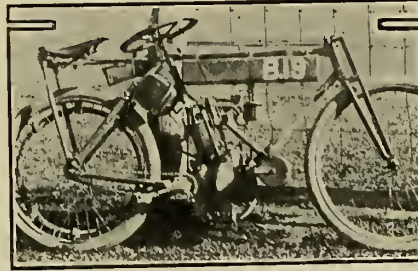
The owner of the car at once dismounted and came to the assistance of the fallen rider, asking him whether he was hurt, and what could be done to aid him. Not content with that alone, he insisted upon remaining by him while a few temporary repairs were made upon the wheel, and the bruises bound up, and then convoyed the party into Stamford, where at a drug store the injuries were further relieved. Not until after he had made sure that no serious damage had been done, did he leave the riders to their own devices and go on his way, and even then he made no mention of the fact that in the collision the rider's head had made a very appreciable dent in the back of the body.

Such cases are perhaps more common than those which are more often heard of, and for the very reason that they display that trace of the milk of human kindness which is supposed to be inbred in all hu-

man beings, but which strangely enough, when found is apt either to be taken as a matter of course, or looked upon in the light of the curious.

The Effect of "Tinkeritis."

To what limits of labor and pains and what extremes of taste a man may go when under the influence of that weird malady "tinkeritis," none can say. Probably the true record never will come to be known owing to the fact that many of the more radical "improvements" thus evolved never are seen outside the tinker's workshop. Some very startling novelties do make their



bow to the public, however, and they are none the less amusing because of the unwavering faith of the inventor in their value. One such is shown in the accompanying illustration, in which the designer became possessed of a mania for employing the seat post for a steering column, and rigging up a real automobile wheel above it for the use of his fond hand in guiding it.

As will be seen, the immediate result of this attempt was to shove the saddle well to the rear, and indeed, it appears that it was only by the merest chance that it got on at all. Having fixed the wheel in position and arranged its mounting to his satisfaction, the next step was to connect it with the head. This must have been a poser. But the germ of "tinkeritis" is an active one and the result, doubtless soon achieved, was that a pair of bridle reins were attached to a suitable yoke which replaced the ordinary handle bars, a duplicate at the base of the wheel, completing the mechanism.

The Parisian thirst for blood-curdling spectacles is being well catered to at the Buffalo Velodrome, where "Dare Devil" Schreyer, as he is called, daily performs what the English call "fourteen flying dives in mid-air with a bogey swerve before reaching four feet of water." A week or so ago Schreyer advertised the fact in Paris newspapers that he would present \$200 to any competent bicycle rider—or his relatives (mark the reservation) who would accompany him in this feat on a tandem. Fools must be a-plenty in Paris, for no less than five hundred applications reached him, even including one from George Barnes, the crack English motorcycle rider. The Prefecture of Paris has informed the management they must be responsible if anything goes wrong.

THE TALE OF AN AIR GUN

It was Rather a Family Affair but is Full
of Human Interest, Despite Some
Painful Features.

Cats, dogs, sparrows and other "vermin" are giving a clear berth to that portion of the wilds of Flatbush, N. Y., inhabited by T. K. Hastings, Eastern vice-president of the F. A. M. At the same time the shore road in Brooklyn is somewhat safer for motorcyclists than was the case. It is all due to the fact that Hastings, Jr., has a new air-gun, presented to him by his doting daddy.

Of course, other daddies have presented their young hopefuls with air guns but for this particular gun Father Hastings did not pay a cent, nor was it given to him. He earned it. It happened in this way: On Sunday last pa and the boy were bowling along the shore road in the former's tricar, when approaching a clump of small boys and some not so small, Hastings heard something zip past his ear. It caused him to look up quickly. A moment later, or just as the motorcycle had passed the aforesaid clump, Hastings sat up suddenly and as suddenly placed his hand on that portion of his generous anatomy situated between his belt and the tops of his leggins. He had heard no zipping but he had felt a wonderful sting at that particular spot. He also saw the clump convulsed with laughter and distinguished something bright in the hands of one of the big little boys.

That moment the motor ceased to chug and when Hastings, Jr., turned his head to see what was the matter, he saw his father hot-footing in the direction of what had been a clump but which now was seven separate packages of humanity skedaddling in seven different directions; he saw father lay hands on the package which dropped a bright something; he saw the lad laid across pa's knee and walloped in rousing fashion that may have inspired some bitter recollections in the junior Hastings's breast; next he saw the toe of his pa's boot lend speed to the youngster's fleet-footedness.... When father returned, he placed the trophy of the chase in his hopeful's hands. It was the "bright something"—an air-gun, nearly new.

What He Didn't Know About It.

An Englishman who is of the opinion that valve grinding is the novice's "vade mecum" recommends carborundum for the purpose as it is the "keenest" powder he knows, but adds "I am not quite sure what carborundum is, but believe it is chiefly composed of the waste dust from faceting diamonds." It is evident that his Latinity and his general knowledge of things mechanical are about on a par.

Hudson

WHY?

Hudson

Q Why are "Hudson" bicycles the most popular? Is it because they are equipped with D & J hanger? But why are the D & J hangers so popular? They have never been so extensively advertised as other hangers and their cost has been so high that other manufacturers use them only when compelled to.

Q We are getting out a book entitled "Why" for fifty of the best answers to the above. We will send copy of the book entitled "Why" in connection with a souvenir that will come in handy.

1907 Hudson Bicycles

WILL LIST AS FOLLOWS:

Model "A" . \$50.00 Model "B" . \$40.00 Model "C" . \$30.00

THE HUDSON MANUFACTURING COMPANY

Main Office and Factory, HUDSON, MICH.

WE DISTRIBUTE TO AGENTS FROM THE FOLLOWING POINTS:

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Hudson

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Veeders for Motorcycles.



Veeder Trip Cyclometer for Motorcycles.

Price complete with Motorcycle Striker, \$2.50.

Veeder Trip Cyclometers are now made with a strengthened case, making them suitable for the more severe service of motorcycle use. A new motorcycle striker is also provided, which clamps securely to the spoke of a motorcycle wheel.

Motorcycles need regular lubricating periods—not based on time, but on **mileage**. In addition to the practical, mechanical reasons for having a Veeder on your motorcycle, there is the further reason that—

"It's Nice to Know
How Far You Go."

FREE BOOKLET ON REQUEST.



The New Veeder Motorcycle Striker.

THE VEEDER MFG. CO., 36 Sargeant St., Hartford, Conn.

Makers of Cyclometers, Odometers, Tachometers, Tachodometers, Counters and Fine Castings.

AWFUL EFFECT OF "CORK PULLING"

It Begets a Poet—If you Doubt that he's
the "Real Thing," Read these Rhymes
if You Dare.

The Prospect Park Cork Pullers of Brooklyn, that unique cycling club which sprang into existence over night, has evolved among other things, a poet—"Mac, the poet," he styles himself. His latest effort in the art of rhyming is a personally directed shaft of doggerell at the "cork" of each member of the club with whom he wishes to "square things." Knocking is the kicker's only consolation, and the budding unknown rival to Poe, Shakespeare, Longfellow and all the other by-gones, considers that he "gets even" by the following:

Just take a ride to Brooklyn,
Down on the cycle path.
And if you think you're a racer
You'll surely get the laugh;
There's an aggregation of wheelmen,
(All of them racing stars)
Who call themselves Cork Pullers
And ride with low handle-bars.

They congregate each Sunday,
At 10 o'clock in the morn,
And try to pull each other's corks
In their plug around the horn;
First in line is Larry Hoppe,
A former racing peach,
Three championships of State he won
Down at Manhattan Beach.

Then comes Frankie Fisher,
The original cork-screw man,
Like his wheel he is a has-been, though
Pulls corks to beat the can;
Next is little Louie Weintz,
The Kid that holds the cork,
He seems to have it on the bunch,
And certainly is the "pork."

Hurrah for Arthur Wilcox!
He with the hard luck tale,
He beats "Sir Walter" Raleigh,
On his Irvington-Millburn Yale.
Then next is Freddy Warner,
Infamous indoor king,
He says when he gets moving
He won't perhaps do a thing.

With gay moustache Pape Rhodes
Can ride to beat the band,
Sometimes he gets his cork pulled
But he's got lots of sand.
Carl Ericson is a dentist—
His middle name is Dan—
He once pulled Fisher's cork, he says,
Now he's an also ran.

He's ne'er been caught, has Herman Lind,
The ringer of renown;
He knows where all the pot-hunts are,
Down in the Jersey town.
Next is Herman's brother,
Victor is his name,
But he, too, gets his cork pulled,
There's not so much in fame.

Gus Perden and John Eubank
And Harold Missimer, too,
Also a bunch of but-ins,
Of which there are a few.
There's Big Swede, Jody Fogler,
He with the six-day hunch,
But wise Joe rides a motor
To keep up with the bunch.

Great big Harry Bennett
On his motor likes to lead,
Once thought he was a racer,
But since lost all his speed.
Bah Jove! Ah, there is Sam Barnett,
Lagging in the rear,
Doping out the handicap
For the races drawing near.

So all that would like to ride some
And give our boys a test,
Just come across to Brooklyn—
The "Pullers" will do the rest.
There are bungs all o'er the city, and
If you'll promise not to get sore
We'll add yours to the collection
And that will make ten score.

Fist Fight Follows Road Race.

Nicholas Kind is club champion of the Edgecombe Wheelmen, of New York City, for the season of 1906. This was decided last Sunday, 4th inst., when the final race of the championship series of the Edgecombes was run at Valley Stream. Although Kind did not win the race he won enough points to clinch the lead he already had.

Last Sunday's race was not very successful, and for the second time within a month, the pressing need of a control body to govern the sport of road racing was made apparent. Although Sheriff Gildersleeve, of Nassau county, prevented an attempt of record breaking behind motorcycles, he could not stop the fist fight that resulted after the Edgecombe's race between two of the riders because of an alleged act of illegal pacing. MacDinald and Brandes were the belligerents.

The first man to finish was Emil Koster, who had started from the six minute mark. The race was for twenty-five miles. Koster, however, was disqualified for being paced by Otto Brandes and another scratch man. According to the story two scratch men dropped out of the race, one remaining at each end of the course, and they would pace Koster back and forth, and thus enabled him to win the race.

Chris Kind, who finished second from the four minute mark, was therefore accorded first place. He rode the race in good time, covering the twenty-five miles in 1:15:08. Samuel Morrison was second, Nick Kind third and Urban MacDonald, from scratch, was the fourth man to cross the tape. By finishing third Nick Kind clinched his lead in the championship table and will receive the silver loving cup donated by the club and the racing bicycle given by Bernard Glemba, treasurer of the club. Chris Kind will receive the gold medal, Samuel Morrison the silver medal and Albert Anderson (Little Allie) the bronze medal.

The summary follows:

Pos.	Rider.	Hdcp.	Time.
1.	Chris Kind	4:00	1:15:08
2.	S. R. Morrison	4:00	1:17:27
3.	Nick Kind	4:00	1:18:33
4.	Urban MacDonald.....	scratch	1:15:51
5.	R. J. Hughes	4:00	1:19:58

LOWERED DARRAGON'S COLORS

In Farewell Race, MacLean Soundly Trounces the Famous Frenchman—Two Other Americans Also Run.

Hugh MacLean won his most notable race of the season on October 28th, at the Velodrome du Parc des Princes, Paris, when he defeated Robert Walthour, Nat Butler and Louis Darragon in a 100-kilometre paced race that was exciting from beginning to end.

Darragon got away quickest at the start and at the end of the first lap was leading MacLean by 100 yards with Butler and Walthour trailing. MacLean increased his speed and drew up to the champion of the world in the next two laps, but was passed by Butler. The time for 10 kilometres was 8:24¾. Shortly after Butler went around Darragon and at 20 kilometres was leading the Frenchman by 100 yards. Time, 16:30.

MacLean came back to the attack and passed Darragon, who also was tagged by Walthour during the succeeding laps and at 40 kilometres, ridden in 32:31½, Butler led MacLean by 50 yards, and Walthour was in third place 600 yards behind Butler. The veteran Cambridge rider tried to lap Walthour but in the sprint that ensued lost his position to MacLean, who led at 50 kilometres. Time, 40:37.

The four riders kept together for the next ten kilometres but just after 60 kilometres, in 48:47, the race began to liven up. A sprint started and Walthour lost his pace and third position to Darragon, who went after Butler. Walthour came back strong but his pace was defective and he changed from Lawson to Pillas, but the new machine was no better. Butler in the meantime had gotten even with MacLean and should have passed him on the turn, but the old man has a horror of turns since he broke his collar bone several months ago, and he failed to take advantage of his strength at a time that would have put him in a good position to win the race.

MacLean profiting by Butler's decision not to pass called for more speed and, having a clear track ahead of him, went out for a gain of a lap and at 80 kilometres the order was MacLean, in 1:05:14¾; Butler, by 1½ laps; Darragon, by 3 laps, and Walthour last. Butler revived and gained the half lap and then started to get the other, as MacLean was fast tiring from the exertion necessary in lapping the others. Butler passed MacLean shortly before 90 kilometres, the time for that distance being 1:13:33¾. Although Butler made a good sprint in the last few minutes of riding he was unable to regain more than a lap of what he had lost and MacLean finished the 100 kilometres in 1:21:39¾, a half-lap in advance of Butler. Darragon was third, four laps behind, and Walthour, although still on the track, had lost 17 laps.

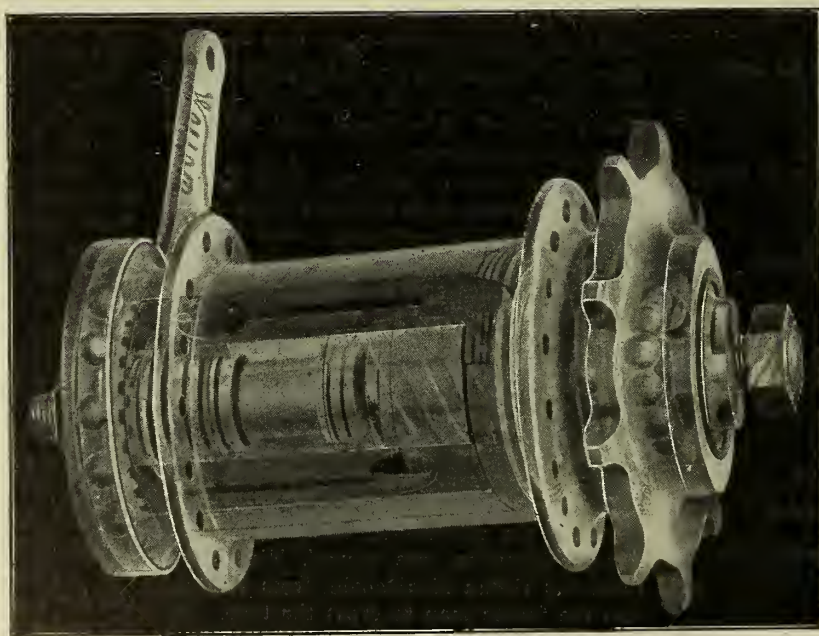
DON'T TAKE "NO"

for an answer

ORDER YOUR BICYCLES

equipped with the

MORROW COASTER BRAKE



All manufacturers will supply them, although one may be found occasionally, who for convenience sake, may require a little urging. The Morrow adds so much to the pleasure and satisfaction of cycling, however, that insistence on the part of the dealer or rider is well worth while. Insist on having the Morrow and you'll get it.

ECLIPSE MACHINE CO.,

Elmira, N. Y.

EPIDEMIC OF CYCLE STEALING

Unusual State of Affairs in Denver Despite
Registration of Second-hand Dealers
—Few Machines Recovered.

With a permanent ownership of bicycles at an estimated value of \$500,000, and \$80,000 worth of new machines being purchased annually, the bicycle riders and dealers of Denver, Col., have come face to face with a crisis brought about by an enormous amount of cycle stealing. This, according to a dealer's estimate, amounts to something like \$35,000 annually in value of wheels purloined, or more than 40 per cent. of the value of the new wheels sold in the same length of time. The police placed the value of the stolen wheels at a much lower figure, stating that it cannot exceed \$18,000 in the course of a year. Their figures are, however, based on a valuation of \$15 per machine on the average, which, as the dealers point out, is probably far too low, since the thieves as a rule appropriate only the more recent types of machine and those which are in good condition. Incidentally, as shedding some light on the view taken by the police, it is to be noted that only about ten per cent. of the thefts reported are followed by recovery by the department.

As a result of this condition, the dealers have banded together and appealed to the police board, in the hope of effecting a betterment of the detective service. By way of clinching the arguments employed, they threatened to refuse to pay the annual tax of \$10 required of them unless something were done immediately. This had the desired effect, and results are looked forward to eagerly.

An average of 100 wheels stolen each month is what the records of the police department show. But this is not a true record of the thefts of this class, as not all of the thefts are reported to the police.

The annual sale of bicycles in Denver is estimated at about \$80,000. The estimated value of wheels stolen each year is therefore nearly half the value of wheels sold.

The figures are startling and the bicycle dealers have reached the conclusion that the police department must recognize conditions and take drastic measures to remedy the evil. They have asked that a detective be assigned to look after this work. The detective department keeps two men constantly at work among the second-hand dealers in other kinds of merchandise; one man is constantly employed looking after the business of the pawn shops and the dealers say that in justice to them the department should assign them a man.

The estimated valuation of other goods stolen annually by petty thieves is given

as \$70,000, or only double that accredited to the bicycle specialist. This, naturally, implies that bicycles receive more attention from dishonest folk than any other single line of manufactured articles.

The fact that the bicycles taken are mainly those of persons who use them in going to and from their business, and such as are for the most part, ill able to afford the loss, casts an even more serious light on the matter. In fact, the detectives admit frankly that common expressions with those reporting stolen bicycles are: "I am making monthly payments on my wheel," or, "I have just finished paying for my wheel."

The bicycle dealers in Denver who deal in any way with second-hand bicycles are required by city ordinance to pay an annual license of \$10. This ordinance was passed a little over six months ago and the dealers did not oppose its passage because they were assured by the fire and police board that the money would be used for their protection and the protection of the owners of wheels. The dealers paid the license for the first six months, saying that they would try the experiment and then if it did not prove satisfactory they would oppose the payment of the tax.

After the six months was up a meeting of the dealers was called to discuss the result. A comparison of notes proved that less wheels had been recovered than during the six months preceding the passage of the ordinance, so a committee was appointed to call on the fire and police board and ask for the appointment of a special detective whose business it would be to do nothing but search for stolen bicycles and bicycle thieves.

At first little headway was made, but after several hearings, a sort of compromise was effected. The board promised to go into the matter more thoroughly if the dealers would pay their license for one year in advance, as provided in the ordinance.

There are an even sixty licensed bicycle dealers in Denver. They are required by the ordinance to make daily reports to the detective department of wheels taken in for repair, giving the numbers and full descriptions of the wheels. These numbers and descriptions will be compared daily with the reports of wheels stolen and an attempt made in this manner to run down the thieves and the stolen property. It is possible that Detective Captain A. W. Loomis will assign a special man to look after this work in accordance with the request of the dealers.

As against the complaints of the dealers, however, the detective department has a defense to make in this controversy. Captain Loomis says that he has considerable trouble with some of the dealers over their negligence in making out accurate daily reports. Another complaint Captain Loomis makes is that oftentimes the loser of a wheel is unable to tell the number of the

wheel stolen or to give an accurate description.

But considered from a purely non-partisan standpoint, it appears that the lack of success on the part of the police in failing to secure a larger proportion of recoveries, is not in the least tempered by any laxity on the side of the dealers in failing to report more promptly. Were the guardians of the law more vigilant in enforcing the ordinances, including that which requires the dealers to record descriptions of second-hand machines and those brought in for repair, it is not unlikely that their activities would also extend to a more vigorous search for the dangerous offenders against whom that very provision was made.

Squeaks in Pedal Bearings.

Few cyclists pay sufficient attention to the condition of the pedal bearings of their mounts. The amount of friction generated in the pedals, even when they are in bad order seems so slight and unimportant, and the labor of dismantling and cleaning them so arduous since it is not vital to the running of the machine, that there is considerable temptation to neglect them. As a matter of fact, however, this should not be done. So delicate is the construction of every part of the bicycle that the smallest amount of undue resistance even in a seemingly unimportant part, soon serves to reduce the enjoyment which may be gotten out of it. Every time the machine is taken out in rainy or muddy weather, the pedals on account of their exposed position, are likely to become flooded with water carrying more or less mud with it. Each time the much needed cleaning is put off to a better day, the bearings are apt to score and become worn, and the result is always a rattle or a squeak which is as annoying as it is needless.

Good Rule for Gas Lamps.

It is a good rule never to burn a gas lamp turned low, nor to let it burn itself entirely out. In either event, the pressure of the gas being reduced, there is less current passing through the burner and the tendency to clogging through particles of impurity carried over with the gas, to say nothing of the ever-present tendency to carbonization on account of the great heat, is greatly accentuated. When the flame is burning clear and well away from the burner there is little danger of trouble from this source.

Value of Lock Nuts.

One way to keep from losing nuts from the ends of important bolts, is to see that they are tight whenever the machine is taken out on the road. Still another method, which is hardly more effective, though economical in that it saves the time required by the regular inspection, is to employ lock-nuts at every critical point.

Iver Johnson Truss Frame Bicycle

The 1907 Models represent our best effort in cycle building. They reflect in the highest degree our twenty-four years' experience in manufacturing standard high-grade Bicycles. Models, Prices and Catalogue now ready.



The IVER JOHNSON Truss Frame gives the high-grade bicycle individuality. It makes the strongest bicycle frame built. It constitutes the strongest selling feature to be found in a bicycle. It is practical, strong, distinctive and scientific.

IVER JOHNSON'S ARMS & CYCLE WORKS

Factory and General Sales Office, FITCHBURG, MASS.

New York Office: 99 Chambers Street.

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Gendron Bicycles

are the matured product of twenty years of continuous improvement and painstaking workmanship. Their worth is real. Their general appearance, style and finish is unexcelled. In perfection of bearings they are unapproached.

Apply for their sale now before your neighbor gets it.

1907 CATALOGUE NOW READY

GENDRON WHEEL COMPANY, = = Toledo, Ohio

GLOBE-GIRDERS IN SCOTLAND

**They Travel Historic Ground and See Much
that Pleases and Instructs—Their
Experience in the Trossachs.**

Glasgow, Scotland, Oct. 7.—Our cyclo-meter now reads a little over four hundred and fifty miles and we are beginning to take pride in that little inconspicuous piece of mechanism in which there can be written so much of human woe and trial with so little of feeling. For we have toiled troublously to add much of the latter seventy-five miles. And there it is, all recorded mile after mile, in the same way, one mile the same as another, with never an allowance for the weary marches that some of them have cost. Since we have left Edinburgh, less than a week ago, our bicycles have intruded the sanctuary of the ground of the noble palace at Linlithgow, the birthplace of the unfortunate Mary, Queen of Scots; have rolled over a portion of the historic battle-field of Bannockburn, where Bruce and his brave Scots hundreds of years ago repelled the invading English; and have been carried and pushed through the Trossachs and over the pathless banks of Loch Katrine.

It rained the day before we left Edinburgh. It usually rains the day before we leave any place in Scotland. Almost as often it rains the day before we leave and it usually rains the day after we leave. The roads on the way to Stirling, forty miles away, were muddy and slippery the morning we departed from the famous old Scotch capital, but before the noon hour had come, the sun was shining once again and the roads were soon in very ridable shape. We pushed along slowly, content with getting to Stirling that afternoon. Our road lay along through the farming districts of Lothian and West Lothian counties, and as we rode by many a party, taking advantage of the sunny spell for a bit of hay-making, (for hay-making in Scotland is very much of a "catch-as-catch-can" proposition), we caught frequent glimpses of the Firth of Forth, rolling its way up into the land, its banks dotted here and there with small towns and villages. Far in the distance we could see a dim, gray, broken line high up in the sky. It was the mountain line. The roads were level, the surface was not as smooth as that to which we had become accustomed farther south.

We were in Linlithgow shortly after one o'clock and there we stopped. Up a narrow way leading from the road which we had been riding, and here transforms itself into the main street of the town, we were upon Linlithgow Palace. We pushed our wheels into the Palace yard as we contemplated the beauties of the loch on either side of this once stately building—Mary's birthplace—and upon the grandeur

of the cold plain exterior of the castle itself. Then down and on, and we were in the neighborhood of Bannockburn. Bannockburn, where centuries ago Robert Bruce and his followers drove back the hordes of the English Edward who sought to despoil the castle of Stirling, at that time the political center of Scotland. The battle-field is now given to the more peaceable purposes of agricultural life. But up on the knoll, where lies the stone on which Bruce planted his standard and around which he rallied his men on that memorable day, there has been erected a monster flag staff, its iron base decorated with the thistle of Scotland. From here, several miles north of us, nestled high above the trees and houses at its feet, we could see the redoubtable castle of Stirling, high upon the top of the precipitous rocks which serves as its foundation.

Stirling is an interesting old town, and we found it the seat of a busy tourist traffic. Its castle was formerly the resort of Scotch Kings and Queens, for Stirling is the ancient capital city of the kingdom of Scotland. The town is one of the most ancient appearing that we have seen in our journeys in England and Scotland, and all about us were signs of a former grandeur now disappeared and passed into commonplace. There is an old house standing at the head of "Broad street" as it is termed, that discloses to public gaze the domestic woes of "unfortunate Mary," for here it is said Darnley, the spouse of that Queen, was wont to resort when quarrels at home in the castle, made life unbearable there.

From Stirling we rode up to Callender and thence into the Trossachs. A bicycle trip in a portion of this region is comparatively easy. It is an interesting tour, too, because every inch of it presents a wealth of grand and magnificent lake and mountain scenery, and it has all been immortalized by that genius "Sir Walter Scott" in his "Lady of the Lake." From Callender to Loch Katrine, a ride of sixteen miles, we passed through a region known by name at least to everyone who has ever read that poem. The road here is a much frequented one, and we passed numbers of excursionists as we pedaled along here. Over to our right rose Ben Ledi, resplendent in a mottled garb of purple and green. Along the banks of the Teith, down which Fitz-James and his party chased the stag, past beautiful lake Vennacher, then Loch Ackray, each one a large patch of fresh blue, down among high towering hills, which cast their reflections down upon the unruffled surfaces beneath them. Over the Brig of Turk, a glimpse of Ben Venue, its head wreathed in a light, fluffy veil of cloud, over a road that winds in and out where precipitous cliffs and heavy green trees overhang it—all this is the Trossachs.

We attempted something that we thought out of the ordinary—a bicycle ride around Loch Katrine. We came upon the Loch

about sundown one evening. We passed up the south bank, and there just at the head rises Ellen's Isle. This is the lake of "The Lady of the Lake." The isle was the home of the lady. We had just started up the northern bank when a rain storm broke upon us and we put up at a little farm house, nestled at the foot of one of the large hills that runs down the bank. We proceeded the next morning. We found that there was no road here and our cycling began in earnest. For a way, there is a pretense at a foot-path, but even this is hardly ever frequented and the rains had transformed it into a running brook in many places.

That day for six hours we made twelve miles of the Trossachs on or, rather with our wheels, for we rode very little, we did merely that, that we might say we had ridden on the banks of Katrine. A short distance, and then the path disappeared and the greater portion of our journey we made through unbroken ground, seeing not a sign of life except an occasional sheep. There were innumerable little streams, most of them we had to ford, in water up to our ankles. We carried our wheels on our backs, or ran them into the middle of the stream and with our hands on handle bars and saddles vaulted across. Through bogs, in mud up to our ankles, our wheels on our backs again, up bits of cliffs, down other bits, now a stop while we tried our luck at casting a fly, in bracken waist high which clogged the chains and spokes, if we tried to push our wheels—this was our trip for four hours. Every few minutes a shower of rain would come sweeping down the valleys over the loch, soaking us above as we already were soaked below. The rocks were sharp, the mud sticky, and before we had completed our trip we had worn through the soles of our shoes. We were fatigued but we exhilarated in having made a bicycle trip which we are sure is not made by every visitor to the Trossachs but which is one well worth while and likely to be remembered vividly.

George E. Holt,
Lester R. Creutz.

A Motorcycle Story in Two Days.

"Frank Lape is the first proud owner in the town of an Indian motorcycle. He just received the wheel yesterday and is already able to master it."—Nanticoke Correspondence Wilkes-Barre paper, Oct. 24.

"Frank Lape while riding down Market street on his newly purchased motorcycle yesterday morning ran into a dog and was thrown from his machine under the feet of a horse that was standing close by. He was scratched about the face but otherwise uninjured."—Nanticoke correspondence Wilkes-Barre paper, Oct. 25.

"The A B C of Electricity" will aid you in understanding many things about motors that may now seem hard of understanding.

That Inlet Spring Story, New Version.

One of the last possible uses to which a tire pump could be applied in effecting temporary repairs on the road, would seem to be the inlet valve of the motor. Yet in at least one case on record, it was done with good success. The rider had had the misfortune to break the valve spring while attempting to stretch it as a cure for an annoying backfire which had developed. It was the old story, too willing hands, a weak spot in the spring, and the result—all the stretch in one spot, when it was attempted to re-coil it as it had been done in the beginning, the wire broke. Neither of the two remaining pieces was long enough to be stretched and fill the gap, and

unfortunately no spare was at hand. It looked like pedal pushing after that, and a good deal of it, too, for the nearest repair man was fully six miles off. Then the rider's eye fell on the tire pump as he was idly casting about for an expedient, and on the inspiration of the moment he removed the top and extracted the helical spring which surrounds the stem. Much to his surprise, it proved to be of about the same tension as the broken valve spring, and after cutting it to the right length, he inserted it in the cage and slipped the cover in place. After a little persuasion the motor started, and continued to run uninterruptedly, although somewhat shy of power. A little power was a great deal

better than none at all, however, and the rider went on his way rejoicing that he had been prompted to make the experiment.

New Jersey's Sprightly Wheelwoman.

Vineland boasts of the youngest old woman in that section of New Jersey. She is Mrs. Caroline Bache Barnes, a great-grand-daughter of Benjamin Franklin. Although 72 years old, having been born in 1834, she still rides the bicycle daily and thinks nothing of a jaunt of twenty miles. Her longest ride of late was from Vineland to Atlantic City. Mrs. Barnes is a professional nurse and uses the bicycle as a means of getting quickly from place to place.



The Racycle

shown in the photograph displays but one of the many claims advanced for it; viz., ENDURANCE. It has many others.

On the Racycle is seen 140 pounds of furniture, which was wheeled twenty-two miles from Cambridge to Marblehead, Mass., over rough country roads, by Wm. Henry Boyle of Marblehead.

All Racycle frames are built from the highest carbon one inch seamless 19 gauge tubing with four-inch internal reinforcements making them the strongest frames ever built.

Let us send you our 1907 descriptive catalogue before you order your next season's samples.

The Miami Cycle & Mfg. Co.

MIDDLETOWN, OHIO

HENRY DE RUDDER, General Agent for Holland and Belgium, Ghent

E. SANCHEZ RUIZ & CIA, General Agent for Mexico, Pueblo

R. SUMI & CO., General Agent for Japan, Osaka

F. M. JONES, 1013 Ninth St., Sacramento, Cal., Sole Pacific Coast Representative

PRODUCTS of our BICYCLE DEP'T

Frame Tubes

Fork Stems

Seat Masts

V and Flat Belt Rims for Motor Cycles

HANDLE BAR TUBING

MANUFACTURERS OF HIGH GRADE MATERIAL ONLY

SEAT POSTS

Fork Sides

Rear Forks

Rear Stays

THE STANDARD WELDING CO., CLEVELAND

HOW CYCLING MAKES TIME

Apt Illustration of the Manner in Which it Gives Man More Leisure—It's Economical, too.

It would seem that about everything had already been said in favor of the bicycle as a means of utility, a cure-all for the invalid, reviver for the aged, developer for the young, and general help to mankind. Yet it remained for a Pennsylvania statistician to figure out that the average person can reach his place of business on a bicycle a great deal sooner than by any other of the common means of transportation. Reduced to hours, and multiplied by the average number of working days in week or month or year, this assumes important proportions as a factor in the economics of daily life. He says:

"The man who rides a wheel to business has nearly half an hour more at home than if he walks or takes a car. Half an hour in the morning and half an hour at night. Six hours a week—two full days in a month. He has more money in his pocket, too, and most pleasant of all, he is an independent being no longer compelled to deliver from ten to twenty cents a day to a public utility corporation for the privilege of hanging on a strap and looking at the same old buildings along the same old street car route, three hundred and twelve days each year."

He might have added that at an average value of \$2.50 per day as the earning value of the time alone, this would amount to \$5.00 per month, which added to another \$5.00 for car fare, makes a saving of \$10.00 per working month, or enough to buy shoes for a family of five besides paying for the machine in a short time.

The Dream of the "Dope" Fiend.

I went to the secret chest in R—'s training quarters in Madison Square Garden and looked over the several bottles of "dope" it contained. There was an imposing array—"Pellet's Purple Pulling Pills," "Dr. Val's Instantaneous Green Mixture," "Sprinter's Delight," "Good-For-A-Century," and others that I had taken at various times. I must win this race! I looked around. No one was in sight. Hastily gulping a drop of each, to make sure, I heard the call, "All ready for the match race!" and ran to the track. Kramer, Lawson and I lined up for a half-mile sprint—the biggest race ever known in history. Pat Powers had offered the entire receipts of the six-day race, over \$100,000, to the winner of this sprint. There is no alternative. I must win. I need a new pair of tights and a sweater and—yes, that will just buy them nicely. My trainer whispers in my ear. "Get away," I shout. "I don't want my feet strapped in; I can beat 'em

with one leg." "Get ready," shouts Jim Richards. "Bang!" goes the pistol and I start so hard that I drag Prudent, my trainer, who weighs 302 pounds, twenty yards before he can let go my saddle post. Five laps to a half mile. I must ride as I never rode before. Kramer and Lawson are nowhere in sight. I try to slow up and wait for them but at the end of the second lap I gain a lap on them. Everything seems a blur. The multitude is on its feet shouting as it never shouted before. Down goes my head and I get my 140-inch gear into motion like a Vanderbilt racing car. Faster! Faster!! Faster!!! "Bang!" the finish! I get off my wheel and one of the timers yells: "The last quarter in 3 seconds,



NEW YORK BRANCH: 214-216 WEST 47TH ST.

eight times a world's record," and I step up to receive the \$100,000 Pat Powers holds in his outstretched hand. What a sensation! What a noise! And how Madison Square Garden seemed to rock! The multitude grabs me, places me on their shoulders and I am tossed about like a cork on an ocean wave. But what is hitting me like a sledge hammer? I feel numb, sore and see a form bending over me. "Wake up! wake up! We're at Valley Stream." I jump up with a start. Oh, yes, now I remember, I was at the Roy Wheelmen's stag party last night and this is Sunday, and the date of the Edgecombe Wheelmen's club race. O-o-o-h-h!!!

Crusade Against Sidewalk Cyclists.

Ann Arbor, Mich., has started a crusade against the practice of riding bicycles on the sidewalks of that city. Two young men were arrested last week and let go with a severe reprimand but the judge let it be understood that the next violators of the sidewalk law would be summarily dealt with.

FOR THE STOCKTON TROPHY

California Clubs Engage in Annual Relay Tussle, in Which the New Centurys Prove the Victors.

The New Century Wheelmen of San Francisco, represented by McWhirter, McGrath, Lawrence, Schiller and Hopper, out-rode teams of the Oakland Wheelmen, of Oakland; the Garden City Wheelmen, of San Jose, and the Bay City Wheelmen, of San Francisco, and secured a leg on the Stockton trophy that is contested for annually. Last year it was won by the Bay City Wheelmen. The race was a relay affair, each rider of a team going five miles, and was held at Alameda, on Sunday, Oct. 28th. A large crowd witnessed the struggle for the trophy. Only one accident occurred and that happened in the second relay when Hancock, of the Oakland Wheelmen; Daggett, of the Bay City Wheelmen, and Plinn Maggini, of the Garden City Wheelmen, came together on one of the turns. This gave McGrath, the New Century rider, a decided advantage and he finished first. Maggini, when he fell, broke his collarbone, but showed rare pluck when he finished after regaining consciousness.

The winners scored 16 points—firsts, seconds and the fastest time in each of the five relays being counted in the reckoning. The Bay City Wheelmen were second with 14 points, the Oakland Wheelmen third with 13 points, and the Garden City Wheelmen last with only 6 points. The fastest time for five miles was made in the fourth relay by Fred McLaughlin, who covered the distance in 13:51, although the second and last relays were also fast, being ridden in 13:55 and 13:54, respectively.

The riders, their order of finish in each relay, and the times, are as follows:

First relay—McWhirter (N. C. W.) first; Cushman (B. C. W.) second; Parson (G. C. W.) third; Lazelle (O. W.) fourth. Time, 17 minutes 55 seconds.

Second relay—McGrath (N. C. W.) first; Hancock (O. W.) second; Daggett (B. C. W.) third; Maggini (G. C. W.) fourth. Time, 13 minutes 55 seconds.

Third relay—Black (O. W.) first; Berryessa (G. C. W.) second; Percy Lawrence (N. C. W.) third; Demara (B. C. W.) fourth. Time, 14 minutes 27 seconds.

Fourth relay—McLaughlin (B. C. W.) first; Schiller (N. C. W.) second; Waibel (G. C. W.) third; Elke (O. W.) fourth. Time, 13 minutes 51 seconds.

Fifth relay—Bassett (O. W.) first; Burness (G. C. W.) second; Hooper (N. C. W.) third; Spellman (B. C. W.) fourth. Time, 13 minutes 54 seconds.

London's police authorities issue a report of stolen bicycles from time to time. The latest edition of the list covers four foolscap pages.

The Week's Patents.

833,551. Process of Facing Roadways, Streets and Walks. George Ross and Stephen F. Deal, Kansas City, Mo. Filed Jan. 12, 1906. Serial No. 295,811.

Claim.—1. The process of facing roadways and the like consisting in loosening and pulverizing the earth to a suitable depth, depositing a binder therein impervious to water and having tough and tenacious properties, and then in compacting the mass of loose earth containing the binder in any suitable manner.

833,584. Motor-Cycle. William H. Cress. Philadelphia, Pa. Filed Nov. 22, 1905. Serial No. 288,535.

Claim.—1. In combination with a motor-cycle, a casing, two shafts carried in said casing, a fly-wheel carried by each of said shafts, a crank connecting the two fly-wheels, a sprocket-wheel carried by one of the shafts for transmitting power to the rear wheel of the machine through a suitable chain, two disks journaled concentric with the shafts, each of said disks being provided with internal gears, a shaft extending across the frame and journaled therein, a pinion carried rigidly upon one end of the shaft and meshing with the internal gear of one of the disks, a second pinion to revolve upon the other end of the shaft and meshing with the internal gear of the other disk, a clutch splined to the shaft adapted to be thrown into or out of engagement with the loose pinion whereby the two disks may be caused to revolve in unison or permitted to revolve independent of each other, a gear-wheel secured upon one of the first-named shafts, a train of gears meshing with internal gear of one of the disks and also with the last-named gear, and means for controlling the clutch from the handle-bar of the machine, as specified.

833,599. Bicycle-Boat. Frederick O. Hanson, Underwood, N. D. Filed April 13, 1906. Serial No. 311,062.

Claim.—A boat comprising a hull, a shaft-sleeve engaged in the stern of the hull, a shaft revolvably engaged in the sleeve and extending into and out of the hull, a propeller-wheel carried by the outer end of the shaft, a packing-receiving disk adjustably mounted upon the shaft, packing in the disk and engaging the inner end of the sleeve, means for holding the disk at different points of its movement upon the shaft, a thrust-bearing in which the shaft is journaled, a seat mounted above the shaft, a bracket located forwardly of the thrust bearing, a counter-shaft journaled in the thrust-bearing and in the bracket intermeshing gears carried by the two shafts, brackets located forwardly of the first-named bracket, a crank-shaft journaled in the second-named brackets, cranks carried by the crank-shaft and second-named shaft, an upwardly-extending frame located forwardly of the crank-shaft, handle-bars mounted in the frame for pivotal movement, a horizontally-disposed triangular steering-head pivoted upon the bow of the boat for horizontal movement with its apex directed forwardly, and rods connected with the steering-head and the handle-bars for simultaneous movement thereof.

833,615. Support for Bicycles. Nancy V. Moltke, Parchim, Germany. Filed May 25, 1905. Serial No. 262,246.

Claim.—1. The combination with a bicycle-frame, of a pair of supporting-arms movably clamped thereto and a transverse bar provided with upturned forked ends clamped to a portion of said frame and adapted to receive said supporting arms.

833,649. Bicycle Attachment. Samuel J.

Taylor, Grants Pass, Oreg., assignor of one-half to William A. Paddock, Grants Pass, Oreg. Filed Mar. 14, 1906. Serial No. 206,016.

Claim.—1. An attachment for bicycles comprising a fork having a body portion of relatively small diameter, a clamp for attachment to the rear fork of the frame, and having an opening to receive the body portion, a spring encircling the body portion between the junction of the arms therewith and the clamp, the arms of the fork being of relatively large diameter, and having the lower ends bent at an angle, plates having curved slots adjustably connected with the angular portions of the arms, a shaft engaging the slots and movable therein, a roller journaled on the shaft, said roller being received in the slots at the rear corner of the bicycle-frame, and means on the plates for engaging the axle of the rear wheel.

833,651. Motor and Other Cycle. William J. Tooley, Great Yarmouth, England. Filed Nov. 20, 1905. Serial No. 288,292.

Claim.—1. A cycle-frame comprising an upper members supported upon the front and rear axles and two lower members, suspended from the upper member and carrying the seat-pillar and the steering mechanism.

833,981. Detachable Pneumatic Tire. Charles S. Scott, Cadiz, Ohio. Filed Oct. 30, 1905. Serial No. 285,059.

Claim.—1. A wheel-rim provided with a flexible bolster having a side flange, and a removable supporting-piece beneath the bolster, substantially as described.

834,054. Spark-Gap and Muffler Therefor. Aaron E. Harrison, New York, N. Y., and Crowell M. Haslett, Jersey City, N. J. Filed Sept. 26, 1905. Serial No. 280,130.

Claim.—1. In a muffler, the combination of a member provided with inner and outer shells, and further provided with means whereby a spark-gap may be maintained within said inner shell, and a lid engaging said inner and outer shells and provided with portions for breaking joints between said lid and said inner and outer shells.

834,179. Sparking Plug. Daniel W. Wilson, New Bedford, Mass. Filed Feb. 16, 1904. Serial No. 193,837.

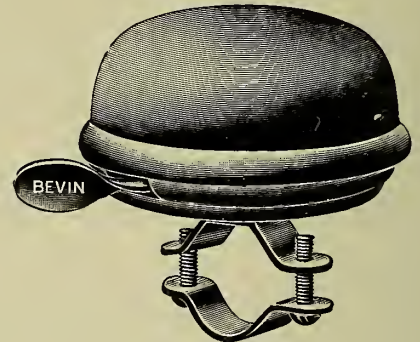
Claim.—1. A sparking plug consisting of a casing, a core of insulation therein, an electrode projecting from the core, a second electrode projecting from the core adjacent the first electrode, and an electrode secured in the casing adjacent the other electrodes, all of said electrodes being arranged in series in the circuit.

834,580. Sparking Plug. Jere G. Kingsbury, West Orange, N. J. Filed May 3, 1905. Serial No. 258,568.

Claim.—1. A sparking plug comprising a tubular open-ended casing which is externally threaded and provided at its outer end with an internal annular flange and internally threaded at a point intermediate of its ends, a tubular non-conducting bushing or sleeve projecting outwardly through the outer end of the casing with its inner end terminating short of the inner end of the casing, said bushing or sleeve integral depending recoil-taking lug containing a forwardly-opening buffer-chamber located below the barrel, a buffer confined within the said chamber, a metal washer adapted to enter the open end of the said chamber in which it confines the said buffer, and a breech-block having a forward extension coacting directly with the said washer and transmitting the shock of recoil to the buffer confined within the said chamber.

THE "Good Old Standbys"

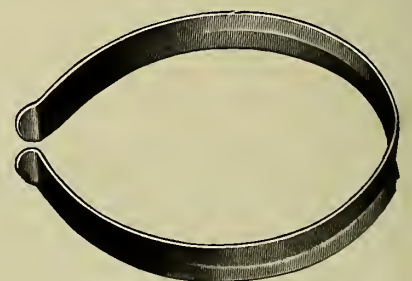
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We invite your careful inspection and severest criticism of the

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They are mechanically constructed on the most improved lines known to the highest skilled mechanics of this country, who have had years of experience and know HOW.

WE ARE RIGHT. Allow us to put you RIGHT. See our lines before closing for 1907 and join the money makers brigade.

Our travelers are out and will see you soon as possible. Wait for them or a card addressed to us will bring full particulars.

WHAT SAY YOU?

The 1907 Yale-California Motor Cycle is a marvel of excellence and is well worth investigating. Let us tell you about it.

The Consolidated Manufacturing Company

STATION B

TOLEDO, OHIO

To the Trade



In deciding your line of bicycles for the coming season, will it not be well to consider how they are made?

Emblem Bicycles

are made by co-operative labor. Will you appreciate this?

Workmanship, Finish and Thoroughly Good Bicycles our aim.

Emblem Manufacturing Co., Angola, N. Y.

DISTRIBUTORS: { JOHN T. BILL & CO., Los Angeles, Cal., for the State of California.
BALLOU & WRIGHT, Portland, Ore., for Oregon and Washington.

Continental Rubber Works Suit.

We desire to notify the trade that our suit against the Continental Rubber Works of Erie, Pa., under the Tillinghast Patents is still pending, and that purchasers and users are equally liable for infringement.

The following manufacturers are licensed to make and sell single tube tires under the Tillinghast Patents:

Hartford Rubber Works Co.

Diamond Rubber Co.

Fisk Rubber Co.

Pennsylvania Rubber Co.

Indiana Rubber &
Insulated Wire Co.

Goshen Rubber Works

Lake Shore Rubber Co.

B. F. Goodrich Co.

Goodyear Tire & Rubber Co.

Kokomo Rubber Co.

International Automobile &
Vehicle Tire Co.

Morgan & Wright.

Boston Woven Hose
& Rubber Co.

SINGLE TUBE AUTOMOBILE & BICYCLE TIRE CO.

THE BICYCLING WORLD and MOTORCYCLE REVIEW

FOUNDED 1877

Volume LIV.

New York, U. S. A., Saturday, November 17, 1906.

No. 8

MAKERS' SESSION AT CHICAGO

**Few Absentees and Much Business Transacted—Eight More Jobbers OK'd—
Next Meet in New York.**

Nearly every member on the roll was represented at the meeting of the Cycle Manufacturers' Association in Chicago on Wednesday last, 14th inst. It was, indeed, the largest gathering that ever had attended a session of the organization and a great deal of business was transacted, most of which was, as usual, of an executive nature.

One of the few things that does not come under that head was the OK'ing of the following names and their addition to the list of recognized jobbers: E. A. Williams, Minneapolis, Minn.; J. M. Smyth & Co., Chicago; Lyon Bros., Chicago; Charles Broadway Rouss, New York; Aubaugh Bros. & Dover, Chicago; S. S. Parmalee, Macon, Ga.; Spalding & Co., Syracuse, N. Y.; and Salt Lake Hardware Co., Salt Lake, Utah.

The next meeting of the association was fixed for January 16th, at the Knickerbocker Hotel, New York—a date that falls during the week of the Madison Square Garden automobile show.

Among those present were: Harry Walburg, Miami Cycle & Mfg. Co.; J. F. Cox and F. C. Gilbert, Pope Mfg. Co.; I. Schwinn, Arnold, Schwinn & Co.; W. G. Schaack, Emblem Mfg. Co.; F. C. Robie, Excelsior Supply Co.; J. F. Vogel, Gendron Wheel Co.; E. J. Lonn, Great Western Mfg. Co.; J. W. Ash, Hudson Mfg. Co.; F. I. Johnson, Iver Johnson Arms & Cycle Works; E. S. Fretz, Light Mfg. & Foundry Co.; F. C. Finkenstaedt, National Cycle Mfg. Co.; Percy Pierce, Pierce Cycle Co.; W. F. Remppis, Reading Standard Cycle Mfg. Co.; F. E. Southard, Toledo Metal Wheel Co.; W. F. McGuire, Consolidated Mfg. Co.; D. P. Harris.

In the afternoon a joint meeting of the publicity committees of the C. M. A. and the Cycle Parts and Accessory Association was held at which H. W. Porter, manager of the publicity bureau, appeared and outlined the work he had done and proposes to do. He was instructed to prepare and submit to all subscribers to the maintenance fund a detailed report of his operations.

Of course, a number of material manufacturers were in the "offing," among them W. H. Crosby, The Crosby Co.; W. J. Surre, Corbin Screw Corporation; W. S. Gorton, Standard Welding Co.; D. Spraker, Kokomo Rubber Co.; H. S. White, Shelby Steel Tube Co.; F. S. Walters, Chicago Handle Bar Co., and C. K. Anderson. F. M. Mathis, of the Norvall-Shapleigh Hardware Co., was also in evidence.

Yale Gets Space at Show.

The Consolidated Mfg. Co. has secured space in the automobile show in Grand Central Palace, New York, which opens December 1st, thereby making a total of seven motorcycle manufacturers who will there display their 1907 models. There is reason to believe that at least three others also will be found in the Palace when the doors are opened. The Consolidated people will have a number of improvements to point to, among them a more powerful motor, an improved grip control, a new tank, a new muffler and last but not least, a new cushion fork which they believe is far ahead of anything of the sort yet offered.

Fire and Water Damage the Spaldings.

Fire during Friday night of last week caused considerable damage to the New York store of A. G. Spalding & Bros. The flames did not touch the bicycle department but the water with which the place was flooded reached it and damaged some sixty bicycles, which because of the resultant rust will be disposed of at fire sale on Monday.

READING SPRINGS A SURPRISE

Brand New Motor Bicycle Announced; Tandem, also—Bristling with Features Out of the Common.

What has been evident must come to pass has brought about by the Reading Standard Cycle Mfg. Co., i. e., the listing of what may be termed a line of motor bicycles, exactly as bicycles themselves long have been listed. For 1907 the Reading Standard people will make and market two distinct models of the R-S motor bicycle, also a motor tandem bicycle, each of the former incorporating a distinctive engine and sold at a different price.

One of the machines, Model C. will employ the $2\frac{1}{4}$ horsepower Thor motor and will sell for \$210, but the other, Model A—price \$225—is the real surprise, as it will incorporate a 3 horsepower engine, which is the Reading Standard's very own. The fact that they had something of the sort under way was known to a few persons but until this week, they were unwilling that public announcement should be made of the fact. Not alone is the engine exclusively R-S property but all other parts and features of the machine are in the same category. It is R-S from stem to stern and Manager Sherman, who knows motorcycles from the ground up, does not mince words in painting the glories of the new comer. He says it has exceeded the fondest anticipations and has solved some vexing problems, oiling, cooling, silence, slow running and vibration among them. Several recent visitors to Reading who were afforded an opportunity to try the new model went away infected with the Sherman brand of enthusiasm. George B. Pieper, the Brooklyn dealer, is of the number. He says he can't find words to do the subject exact justice.

Not only is the motor newly designed but the same is true of the carburetter,

muffler, oiling device and grip control, to mention only the chief features. Both inlet and exhaust valves of the motor are mechanically and, therefore, unvaryingly operated and the carburetter is attuned thereto, to which much of the splendid results are attributed, a slow pace of four miles being claimed for it while uphill it has been found possible to travel at an unjerking rate of eight miles per hour. The exhaust outlet is of large proportions and discharges in a straight pipe into the muffler which, wonderful to relate, employing no cut-out, is always open and yet is wonderfully silent. It is pierced from end to end by a $\frac{7}{8}$ -inch orifice permitting the exhaust gas to escape from both ends. It is claimed that each discharge is exhausted wholly and separately and all back pressure and mingling of spent gas is absolutely avoided.

The lubricating device is of the oiled-from-the-saddle type and moreover is sighted, obviating all guess work. Turning a lever in one direction fills the cup, reversing it discharges the oil into the motor.

The frame is of new design, permitting the motor to be hung low; the R-S spring fork is employed; the wheel base is 51 inches; the transmission is by $\frac{5}{8}$ -inch pitch roller chains, which have been run more than 700 miles without adjustment; when adjustment of the driving chain is required it can be effected independently of the starting chain. The starting sprocket and hanger are contained in a separate eccentric hanger, the counter shaft being arranged in another hanger in the rear of the former. The wheels are 28 inches, fitted with either Goodrich or Indianapolis G & J $2\frac{1}{4}$ -inch tires; choice of Thor, Morrow or Corbin coaster brake will be afforded.

Sprockets From a New Source.

The Hydraulic Pressed Steel Co. is the style of a new concern which has commenced business in Cleveland, Ohio, and which is making a bid for the trade in bicycle sprockets. Its general manager, James H. Foster, was formerly identified with Parish & Bingham, which means that what he does not know about sprockets is not worth knowing.

Emblem "Goes Into" Motorcycles.

The Emblem Mfg. Co., Angola, N. Y., has joined the swelling ranks of those cycle manufacturers who for the first time will include motorcycles in their 1907 lines. The Emblem machine will employ the Thor $2\frac{1}{4}$ horsepower motor and other Thor components.

Who's Flirting with Winona.

"A gentleman was in Winona this week looking for a site upon which to remove his motorcycle factory," says a Winona (Minn.) paper. "Conditions are unpleasant where the factory is now located, hence his desire to move."

CANADA OPEN FOR CLINCHERS

Expiration of G & J Patent Lifts Bars— American Rights Still in Force, With an Ace in Reserve.

Although it is probable that only those directly concerned were aware that the market across the border ever was restricted, it is a fact, nevertheless, that Canada for the first time is now a free field in respect to clincher tires. There are those American tire makers, of course, who are cognizant of the fact and who are making the most of the opportunity.

Canada's freedom in this regard is due to the expiration of the clincher patent on the G & J type of tire, which patent, by the bye, was not the property of the G & J Tire Company, the inventor, Thomas B. Jeffery—now the maker of the well known Rambler cars—having retained possession of it when he transferred the American rights. In the Dominion, the life of a patent at that time was fifteen years; in the United States the limit is seventeen years.

The fact that the Canadian patent has expired has induced a belief in some parts that the American G & J patent, No. 454,115, also was about to terminate. This, however, is not the case, as it still has considerable life left in it. It will not expire until June 13, 1908. Moreover, even at that time there are those who maintain that the G & J grip on the situation will not be appreciably lessened, as there still exists another patent, No. 558,956, which bears very directly on the matter, which will not run out until April 28, 1913.

The original patent covered only the basic hook-on or clincher bead. No. 558,956, however, applies to the diagonal cut or fashion in which these beads have been made of late years, and which permits them to fit snugly one against the other in the rim. Without this form of construction it is not believed a successful clincher tire is possible and it is reasonably certain that the patent thereon will play a part when the other one expires.

Outgrowth of an Oversight.

Every once in so often little things occur to demonstrate convincingly how closely the advertising pages are not only perused but are followed from week to week. One of the instances of the sort recently happened in the Pope Mfg. Co.'s advertisement in the *Bicycling World*. Due to oversight, the names of the Tribune and Stormer bicycles were omitted from the list of brands which that company had been specifying each week. The result was not long in making itself felt. Rumors began to circulate freely that the manufacture of the Tribune and the Stormer had been discontinued. Of course, nothing of the sort had been done but the Pope people have been put to the pains of explaining

"how it happened" in refuting the rumor and as they do not know how far the impression may have spread they are anxious that it be made known that those two brands remain very much a part of the Pope line.

About Warming the Carburetter.

Cold weather hints are now being taken out of camphor for the benefit of that section of the motoring community that has not celebrated its first anniversary. One of them that it would hardly appear necessary to refurbish for the occasion is akin to that old one about not dropping lighted matches in the powder barrel. And it concerns warming the carburetter when a rapid descent of the mercury in the thermometer has made starting difficult. "Don't build a bonfire under the carburetter, nor on the other hand have a bright inspiration and think that a plumber's torch is a very sure and convenient method of applying the heat." As already mentioned, such a piece of advice appears utterly superfluous, but like the man who "didn't know it was loaded," there are those to whom it would be valuable. Unfortunately, it never reaches them until too late. For the benefit of those who have never done one or the other, it may be added that the only proper way to warm a carburetter is to swathe it in a cloth that has been dipped in hot water and well wrung out. Two or three applications in succession will seldom fail to bring about the desired result.

Kerosene for the Cylinders.

Generally speaking, when the advice is given to flood out the cylinders of a motor at frequent intervals with kerosene, the reason assigned is that it dissolves the lubricant which is apt to be hardened on the walls and thus gives the piston a chance to do its work without undue frictional resistance. As a matter of fact, however, its effect upon the piston rings is of far greater importance. The rings, it is to be remembered, are fitted into slots in the piston, a clearance of only two or three hundredths of an inch being left for the working which is bound to take place. If the slightest particle of oil is allowed to harden in this delicate bearing, the efficiency of which is indispensable to the retention of compression in the cylinder, the immediate result will be a clogging which in a cylinder which is out of true, will cause a break. Otherwise the only result will be a loss of compression due to the unyielding of the rings. A little thin oil or kerosene filtering over the sides of the piston soon finds its way into the seatings of the rings and clears them of all foul deposits.

"The A B C of Electricity" will aid you in understanding many things about motors that may now seem hard of understanding. Price, 50 cents. The Bicycling World Co., 154 Nassau Street, New York City. ***

PUTTING BLAME ON MACHINE

Too Common Practice of Motorcyclists,
Which Leads the Repairman to Re-
late a Good Illustration.

"There are all kinds of motorcycles—good, bad and indifferent, but even the best of them require some intelligent care," remarked the Experienced Repairman to a Bicycling World representative the other day.

"You see that fellow," indicating a motorcyclist who was just passing at a good rate of speed on a well known make of two-cylinder machine. "Well, he bought that less than three months ago and last week he brought it in here to me—in an express wagon, by the way, and there weren't enough bad things he could lay his tongue to to say about it. It was punk, that was all, and the people that made it might far better have been turning out wheelbarrows, to judge from the specimen for which he had given up his good money.

"Some repairmen make a big mistake. Whether they know the fact to be the contrary or not, they will fall in with the opinion of their customers no matter how bad it may be.

"Probably because they can then take so much more credit to themselves for putting it to rights again," was suggested.

"That may be it, but I steer clear of it, just the same. I have had considerable experience with that make of machine and I told him right off that I was very much surprised to hear anyone say what he had of it. I also told him that I had seen a great many of those same machines and had never heard of one going wrong to anything like the extent he had accused his of, through faults of their own.

"Yes, but they were all single cylinder machines," he comes back at me with.

"Of course, the majority of them were. You don't see more than one twin for every twenty-five or fifty singles, but I get one in here every now and again.

"No, it doesn't always follow that a concern that has been turning out a very successful single cylinder machine should do the same with a twin, although it's natural to suppose that their experience would be of considerable value. Still that has nothing to do with the case, because I know personally that the two cylinder machines of that make are just as successful as any singles that the concern ever turned out and I told the fellow so without any hesitation. I didn't want to turn a customer away. That wouldn't be good business, but I thought the opportunity ripe to give that fellow a good lesson, for I sort of took the way he had run down the machine as a personal insult and determined to show him a thing or two. I knew he would have

to crawl before I had gone very far but I didn't expect to see him collapse so soon.

"After he got through telling me what a rotten thing the whole machine was from the ground up and how much better off the builder would be making push carts, I took a glance over the machine but didn't touch anything. Then I spoke up.

"I'll give you \$200 cash for that machine just as she stands," I said.

"Oh, I don't want to sell it, I just brought it in to have it overhauled."

"Well, according to your opinion of it, junk would be a complimentary name to give it and if you had told me what you have about it without my having seen the machine I would have told you it wasn't necessary to bring it around, but as things stand, I'll wager to put that machine in good running order within five minutes by the watch or forfeit ten dollars, and not charge you anything for my time in the bargain.

"That took the wind out of his sails completely. He backed right down when I offered to buy the machine and then gave up altogether on the question of a forfeit. 'No, I won't bet,' he says. 'Go ahead and fix her up and I'll wait for it.'

"There were enough things wrong about that machine to have put half a dozen motors out of business, and the wonder is how any motorcycle ever ran at all under such conditions, for this one did, as he told me he only brought it around in an express wagon to make sure of getting there, as the machine had a habit of 'weakening down' as he expressed it, finally stopping and then he had to sit down on the curb and wait fifteen or twenty minutes before she would go again.

"In the first place, the battery was all but dead. Tested with the ammeter it registered between three and four amperes and that's pushing the mourners a bit too far on a twin cylinder engine. It's past the danger mark for a single. Those cells were the only ones he had ever had. They came with the machine and he had never thought it necessary to buy any new ones. He was the kind of fellow who would have sent to the makers, several hundred miles away, for new ones if it had struck him they were necessary. He might even have sent for a 'package of compression' if he had known enough.

"The contact breaker was all out of adjustment so that one of the cylinders fired entirely out of time and probably caused the engine to pound like fury. And the platinum points were dirty, not to speak of the condition of the remainder of the machine—that is on the outside. How it was on the inside I could only guess.

"I shoved a new set of cells into the case after having cleaned the contact breaker thoroughly and put the machine on the stand. She started off without any trouble but didn't run altogether as a machine in good condition should. So I tackled the inlet valves next and as was to be expected

they were caked and gummed with oil and dirt. How the machine ever ran at all with them in that condition is a mystery to me. When I showed him one of them he said, 'Oh, yes, about a month or so ago something happened to the oil cup and it dumped a whole cup full of oil into the cylinder in about five or ten minutes. I had to refill it and even that cup full ran out too fast but I got the thing adjusted right the third time.

"Two cups full of oil dumped into the crankcase within half an hour on what was probably already a normal supply.

"Oh yes, she spluttered and smoked like the devil. I had a lot of trouble with her after that' he said, when I asked him what the result was. But he hadn't drawn off any of the oil for all that.

"I cleaned the valves and found that as they had not seated properly for some time they were slightly burned. It took probably about twenty turns to get them bright again. And then to make sure of it, I drained the carburettor and cleaned it out.

"Of course, neither the bit of valve grinding nor the carburettor cleaning was absolutely necessary to make the machine run well, but even including them the repairs took but a little over half an hour, and after having put new spark plugs in—more to increase the smart Aleck's bill than anything else—for the old ones though in a filthy condition could have been cleaned, I tried the machine again and she worked to perfection.

"My friend immediately sat up and took notice. 'She never ran better than that even when she was brand new,' he said and that was reward enough for me. In the way of a compliment, that is, for I charged him three fifty in addition. If he'd been decent about it in the first place he might have got off for half that or less but I thought it would be a good chance to teach him a thing or two.

"He rode off in fine shape and that is the last I ever saw of him until he just went by here a little while ago and from what I can see he must have taken the pointers I gave him to heart, for the machine seems to be running just as well as ever and it's almost a month since he brought it in here as a wreck.

"When you consider some of the people that buy motorcycles and try to ride them, it's not a wonder that the machine gives so much trouble but that it runs at all. It's certainly a mystery to me how some of them ever manage to ride a hundred miles the way they neglect their machines.

"There's one thing a man can depend upon, and that is if a machine ever did run right, it will run right again under the proper conditions. Some of them 'get out of whack' easier than others, but when they don't work it's up to the owner to use his head and find out what's wrong instead of cussing the machine and the man who made it."

A Demonstration of Our Claims of Durability of the National

A few days ago we received from one of our old customers a National, which he had sold in 1896, and which had been in continuous service ever since.

He sent it to us as a sample of National durability.

After it had been ridden over 17,000 miles, its owner decided to try for the 300 and 400 mile records, and succeeded in breaking both of them.

This bicycle has been ridden over 50,000 miles and contains the bearings which were sent out in it originally.

The cups and cones to-day are as bright and free from blemish as when new.

It's good for another 50,000 miles, but we will keep it as tangible evidence of results from using good materials.

There are thousands of Nationals just like this one.

Nationals to-day are made from the same quality of materials.

We have always been believers in good bicycles, and as every machine we make carries our trade mark, we cannot afford to cheapen their construction.

Are YOU Riding or Selling a Bicycle of the Sort?

NATIONAL CYCLE MANUFACTURING COMPANY
BAY CITY, MICH., U. S. A.

**Comfort
Resiliency**

and 45 per cent. Saving in Tire Maintenance are the essentials
of the ever reliable

Fisk Bicycle or Motorcycle Tires

Like all Fisk products, they have a Quality and a Construction that is exclusive—real merit—through and through—that makes their distinct superiority apparent.

WILL OUT-LAST TWO OR THREE OF OTHER MAKES

THE FISK RUBBER CO., Chicopee Falls, Mass.

THE BICYCLING WORLD and MOTORCYCLE REVIEW

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Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should
Address us at P. O. Box 649.

NEW YORK, NOVEMBER 17, 1906.

What's the Number of Yours?

It is an astonishing fact, brought out by most casual inquiry, that few men, comparatively speaking, know the very significant number which is the sole distinguishing mark of their individual bicycle. From the very beginning of its existence as a bicycle its chief claim to individuality centers about this number which is stamped on the frame in a characteristic way, by the maker. It may be altered subsequently, remodeled, reënameled, changed in such a way as to be practically unrecognizable, yet the number remains to mark it as the same machine. If perchance a bicycle is lost or stolen, this alone, will serve as positive identification and distinguish it from thousands of its kind.

In all the larger stores and shops, it could be bought and sold by number. Yet the average owner could not, if his life depended on it, tell what that number is, even though he may have ridden the machine for years and taken it apart seventy-nine times. If the machine is a motor bicycle, the motor, too, has an individuality of its own and is known by another number, but more riders know this, perhaps, because it is stamped in plain sight, and

rubbed over with waste every time the crank case is cleaned.

It may be a good thing to remember—this number business, and perhaps more important that that of the number of teeth in the rear sprocket. That can be determined at any time, but cannot aid in recovering stolen property. To remember the number, however, may save the cost of the machine sometime, and aid in bringing to book some scamp who otherwise would profit by the carelessness of the rider.

Training That is Not Enough.

A great deal is heard here and there of the value of training—special and general training of one sort and another, and its influence upon business. Indeed, the prevailing impression in many cases seems to be that the man who is thoroughly trained in his particular line of activity is at once prepared to cope with its most trying problems, to deal with its intricacies, swing it this way and that according to his will, and both wisely and well. Far from this, the natural result of over-specialization, which is the extreme of specific training of any sort is to narrow rather than to broaden the individual, confine his activities to one line of thought, one group of efforts, and make of him a high class drudge—sagacious and capable, it may be, but none the less a drudge.

Tacked up in the desk of a certain well known manufacturer may be seen this text which bears directly upon the subject, and which, like many another occupying a similar position, forms a part of the owner's personal creed of life. The words are these:

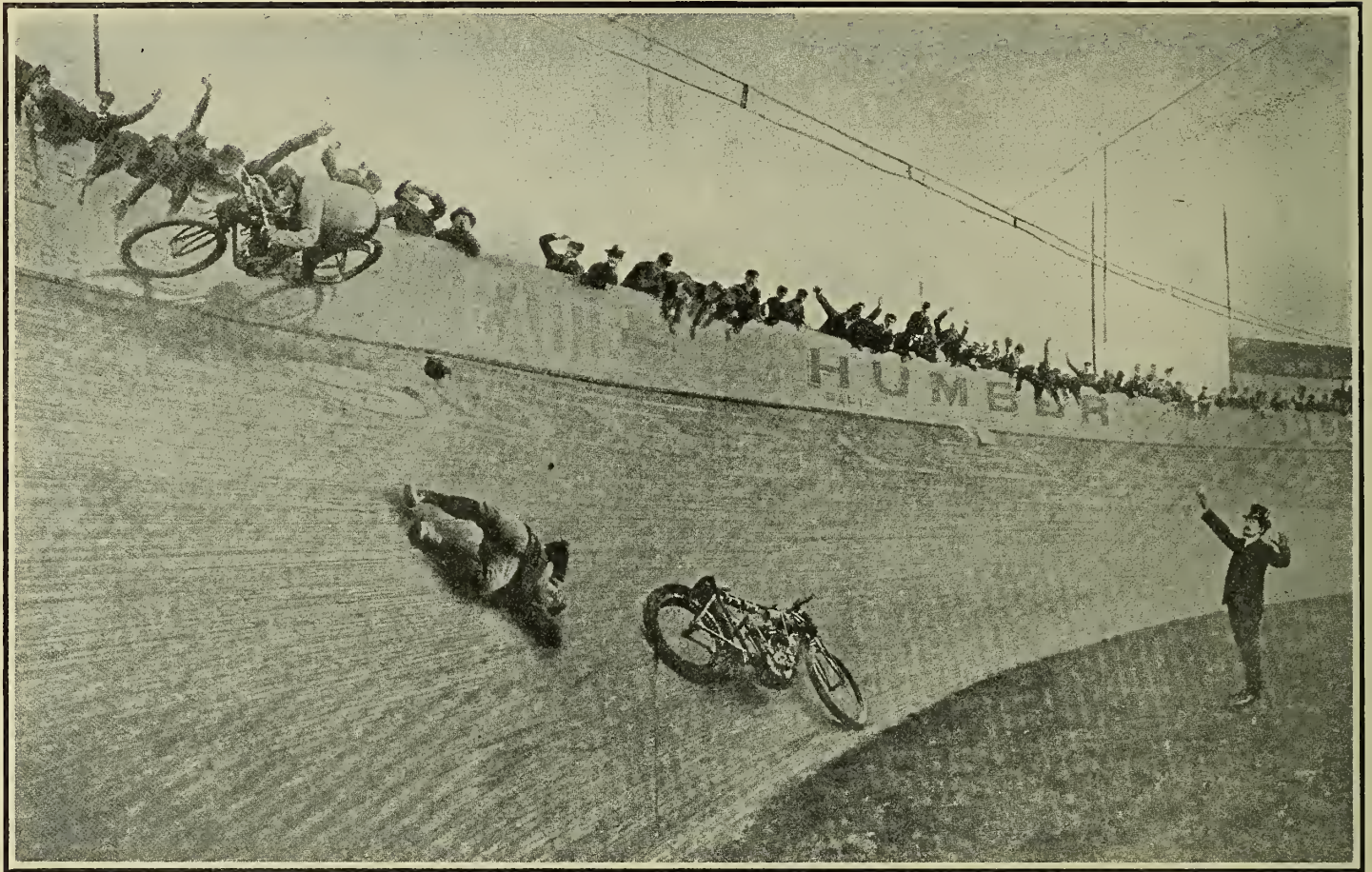
"Training is not enough. The trained man must be directed by some one who is able to judge rightly, and there is a vast difference between mere intellectual cleverness and the ability to judge rightly. A great part of this ability to judge rightly comes in the ability to learn from other people, to pick out from the thoughts of other men the things which are worth imitating, and rejecting the inferior."

The man who has received his special training, in any line whatever, is in practically the same position as a colt which has just been broken to harness. He has been taught to respond to certain stereotyped conditions in a certain patterned way; he has accustomed himself to respond to the guiding touch, the voice, the whip—obediently, faithfully, quickly. He may be wil-

ling and ambitious, he may be clever to an unusual degree, but at best he is only ready to begin his education. In learning to bear the weight of the harness and the thrashing of the shafts, he is ready only for the ruts of life. Its routine he knows as well as he knows the instinctive processes of eating and drinking. But it is not the steady harness work which counts in the long run. It is not the dumb response to commands, which make the educated animal, nor the educated man. Rather it is the ability to resist temptation under strong provocation, to follow leadership under unusual circumstances, to contrive new methods to meet new demands, which makes for complete education.

But the trained man makes an excellent tool for the guiding hand of the judicious business man to direct to his own interests. He is like a delicately fashioned and well made machine, capable of turning off a great deal of work in a minimum of time, and with proper facilities, to prove of inestimable worth to the man to whom he sells his labor. The skillful mechanic who has spent seven long years of apprenticeship learning to sink a perfect die, may not be able to direct the work of a tool room any more than he is able to walk on stilts. Yet the other man without his skill of hand, yet with the ability to judge rightly, may be able to cull from him enough ideas to run the whole shop and that without trespassing on the rights of the trade. In other words, there are two sorts of specialized training, the one which directs the energies along a line of concrete creative effort, the other, which fathoms the workings of other men's brains, picks from them what he needs, chooses method and detail by studied intuition, and guides the technical skill bred by the other sort of training. One goes to the school, to the shop, to the offices to learn the one, but one never goes to school to learn the other. It is the far-sighted wisdom of the general controlling an army by sheer force of will and knowledge of human nature. The truly successful man, manufacturer, dealer, whatever he may be, must be skilled in both senses, trained in both senses of the word. But the training which stands him in greatest stead is never acquired from books nor from teachers. It is a life long lesson which begins in the gutter and ends in the grave, a lesson learned little by little, day by day, by contact with his fellow men and observation of their methods.

THRILLING REPRODUCTION OF A THRILLING ACCIDENT



Probably the most remarkable photograph of the kind ever manufactured is that here shown which depicts the climax of the shocking accident at the Velodrome Buffalo, Paris, Oct. 8th, in which two persons met their death and two others were seriously injured. It will be remembered from the account published in the *Bicycling World* at the time, that two contestants, Pernette and Contant, were riding a match race. After three laps had been covered

without incident, Pernette, who was leading, owing to the wet surface of the track upon which the rain was beating, skidded badly and fell. Contant, who was close behind him, jerked to one side to avoid him and riding up the bank, mounted the fence at the top and literally rode along the face of it for some little distance, finally striking a pole and falling down the bank. During his passage along the barrier his foot rest struck the heads of two young men

who were leaning over to watch Pernette, killing them almost instantly, also gashing the faces of two women who were with them. The picture comes from abroad and is an artificial reproduction of the scene made by patching together a great number of smaller pictures taken for the purpose. Despite its "fake" nature, however, it is one of the most thrilling scenes ever reproduced and shows the possibilities of photographic ingenuity.

Darragon Again Downs Walthour.

"Bobby" Walthour again fell before World's Champion Darragon in their three heat match race at Paris on Nov. 4th. The first heat of the match race was for 20 kilometres. The American started off with a rush and led at half the distance but the subsequent attack of Darragon was so strong that Walthour stopped riding before the finish. In the second heat, however, he rode in fine form and rode Darragon off his feet. Walthour finished the 30 kilometres in 24:22½ and at the gun was two laps in front of the champion. The third heat went for 25 kilometres and this Darragon won by 4½ laps, in 20:03½. Walter Rutt, the German champion who is to team with McFarland in the six-day race, showed up particularly well in the unpaced races, beating Mayer, Doerflinger, Meyer and Ingold in the 10 kilometre (6.2 miles) and

breaking the record of 13:43½. Rutt rode in 13:25½. In the 1,000-metre handicap Rutt started from scratch and finished third. The race was won by Gregory, an 85-yard man.

Farmer Motorcyclist Beats a Train.

According to a press dispatch, riding to win a wager Sidney Martin, a young farmer of Upper Sandusky, Ohio, on a motorcycle, beat an express train on the Hocking Valley between Harpster and Upper Sandusky last Sunday. The distance is eight miles which Martin covered in 12 minutes, beating the train by 2 minutes. According to the story, the engineer knew of the wager and could see his competitor for a greater part of the distance as the road parallels the railroad track. Of course, the young farmer is proud and is the wonder of the country folk for miles around.

"Dead Broke" Johnson Reaches Chicago.

Axel Johnson, the cyclist whom a Bridgeport, Conn., evening newspaper sent from that city to Chicago, without a cent to write of his experiences, reached the Windy City on Saturday last, bespattered with mud and showing the effects of the physical strain. Johnson left Bridgeport on Sept. 26th; at Chicago his cyclometer registered 1,416 miles, indicating many detours. He must return to Bridgeport by bicycle and the homeward trip must be made within a specified time. His only source of revenue is derived from selling photographs of himself, a condition of the trip. Johnson is a member of the Century Road Club and he gained some distinction by winning the Copenhagen-Paris road race in 1899, before he came to this country. Formerly "dead broke tours" had considerable vogue but they are a rarity at the present time.

BAY CITYS CAPTURE TEAM RACE

But Only After a Long, Stern Chase—
Twenty Riders in a Spill and an
Ensuing Scramble.

An unlimited pursuit race between picked riders representing four clubs which lasted just fifteen miles was easily the feature event of the race meet held on the new five-eighths mile track in Golden Gate Park, San Francisco, on Sunday last, under the auspices of the California Associated Cyclists. It was won by the Bay City Wheelmen, whose team consisted of Fred H. McLaughlin, D. Cushman and Arthur Daggett, who trounced riders of the New Century Wheelmen, Central City Wheelmen and Garden City Wheelmen.

In four laps the Bay City men tagged the New Century riders and although Hopper made a long sprint to keep his team from being counted out they had to retire. The Central City team was the next victim although Peigne gave the Bay City sprinters a two-lap chase before they caught him. The Garden City team of San Jose riders which had started an eighth behind the Bay City men had gained somewhat on their rivals, but one of their riders could not keep up with the hard pace and Berryessa and Byler were compelled to take up the fight between them. They maintained the advantage until ten miles when Berryessa sprinted and left Byler behind. He succeeded in getting within a few yards of the Bay City team but could not keep up the sprint and after two laps began to slow, and he rejoined Byler. The Bay City team had not been idle and after changing pace they caught Berryessa, who fell from his bicycle with exhaustion when he had been passed. Byler made a gallant fight for five more laps, but left alone, he could not continue as fast as McLaughlin and Cushman, and he was overhauled at the end of the twenty-fourth lap. The time was 51 minutes.

A collision in which twenty riders hit the ground occurred in the two mile handicap. On the home stretch just after the completion of the fifth mile, one of the riders wobbled and fell, and the bunch rode over him, only two men being left in the race. The others grabbed machines and went after the pair that had escaped the mix-up. Waltz, of San Jose, had a good sprint left in him for the finish and he beat Hancock, of Oakland, by a wheel at the tape.

Four Garden City Wheelmen and Lawrence of the New Century Wheelmen qualified for the final of the five-eighths mile open. The San Jose bunch worked things pretty much as they pleased and finished one, two and three, Berryessa getting the prize. The summaries:

Five-eighths mile open—First heat won

by Lawrence, N. C. W.; second, Fay Smith, G. C. W.; third, Stone, G. C. W.. Second heat won by Daggett, B. C. W.; second, Berryessa, G. C. W.; third, O. Hooper, N. C. W. Third heat won by McLaughlin, B. C. W.; second, Waltz, G. C. W.; third, Chaboya, G. C. W. Fourth heat won by Burnett, G. C. W.; second, Nugent, G. C. W.; third, Lehillier. Fifth heat won by Sullivan, B. C. W.; second, A. T. Smith, O. W.; third, W. White, N. C. W. First semi-final heat won by Berryessa; second, Lawrence; third, Waltz. Second semi-final heat won by Waible; second, Burnett; third, Smith. Final heat won by Berryessa; second, Waltz; third, Waible.

Ten mile handicap—Won by Waltz G. C. W. (330 yards); second, Hancock, O. W. (220 yards); third, W. Whirte, N. C. W. (330 yards); fourth, Winters, B. C. W. (880 yards); fifth, Laye, N. C. W. (550 yards). Time, 23:15½.

Unlimited pursuit team—Won by Bay City Wheelmen (McLaughlin, Daggett and Cushman); second, Garden City Wheelmen; third, Central City Wheelmen; fourth, New Century Wheelmen. Distance, 15 miles. Time, 51:00.

Home Trainer Season is Opened.

Roller or home trainer racing was inaugurated for the season on the Pacific coast at the meet of the Garden City Wheelmen, held in their clubhouse at San Jose on Saturday night last, 10th inst., when they defeated picked men from several out of town clubs by a margin of 6¾ seconds to spare over their fastest opponents, the New Century Wheelmen, of San Francisco. The Central City Wheelmen finished third.

W. C. Waibel, the San Jose champion, rode the fastest "race" of the evening. In spite of the fact that he was compelled to make three starts, on account of the indicators on the dial of the big machine going wrong, he finished his allotted two miles in the fast time of 2:25. The closest race was the special match between Willard Parsons and L. Magginni, both crack road riders of the Garden City Wheelmen. Magginni won by a close margin, beating Parsons only by one and two-fifth seconds. The summaries:

First heat won by H. McWhirter, New Century Wheelmen, San Francisco; second, William Chaboya, Garden City Wheelmen, San Jose. Times, 2:35 and 2:46¾.

Second heat won by Peigne, Central City Wheelmen, San Francisco; second, McGrath, New Century Wheelmen. Times, 2:30 and 2:43.

Third heat won by W. C. Waibel, Garden City Wheelmen; second, Wagner, Bay City Wheelmen, San Francisco. Times, 2:25 and 2:50.

Fourth heat won by Waite, Bay City Wheelmen; second, Carlson, Central City Wheelmen. Times, 2:34½ and 2:51.

Special match race between L. Magginni and Willard Parsons—Won by Magginni. Times, 2:35 and 2:36¾.

TEAMING AND LOAFING TABOOED

Six-Day Riders Required to Bind Themselves Against Those Practices—One
New Team "Signed Up."

Those six-day bicycle riders who year after year have been in the habit of forming combinations for the division of prize money or to prevent other riders from gaining laps, to the degradation of the race and the demeaning of themselves are, slangily speaking, "up against it" this year, that is, if the iron-clad rule that has been included in the official entry blanks and in each individual contract is strictly carried out. Riders who are detected in any combinations of any description will stand to lose any and all moneys due them. It is a remarkably good rule and should eliminate the scandals which have inevitably followed all previous six-day grinds.

The paragraph relative to teaming which the promoter of the six-day race has made each and every rider agree to when he put his signature to the contract, and which seems to afford no loop-hole of escape, reads as follows:

"The said party of the second part (meaning the rider) hereby agrees to forfeit any and all moneys due him for riding in said race in the event that he shall enter into any combination or combinations, agreement or agreements or any contract or contracts for the purpose of either assisting or hindering any other rider or riders in said race.

Another new rule, that is a good one and ought to prevent loafing on the part of the riders, has been made, as follows:

"In case any team or teams, or individual components of same shall slow down the mileage of the race below a minimum of 2,000 miles for the 142 hours constituting the total time for the race, such team or teams, or individual components thereof may forfeit all rights to the prize or other moneys guaranteed by the management subject to the decision of the Board of Control."

Although the entry blanks fix the date for the closing of entries on December 1st, the teams have, for the most part, been selected; the full list will be announced next week. A new team that signed this week is composed of Urban MacDonald, of the Tiger Wheelmen, who will ride for the first time as a professional, and Charles Schlee, the noted pursuit rider of Vailsburg.

Nickerson an Official Handicapper.

Chairman Douglas, of the F. A. M. Competition Committee, has made a move in the direction of securing more systematic and intelligent handicapping of motorcycles. His move has taken the form of the appointment of R. H. Nickerson, of New York, an official handicapper, Nickerson being an experienced motorcyclist who is "well up" on the mechanics and mathematics of motors.

Watch for the Advance Postal OF THE RACYCLE SALESMEN

They can't see every Dealer the first week or the first month, but they will be sure to see you sooner or later with their

1907 Racycle and Miami Samples

Racycle salesmen always have something novel and interesting for the old as well as the new dealers.

Hold a place open for them and you will never regret it.

THE MIAMI CYCLE & MFG. CO., Middletown, Ohio

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The "One Best Buy" of the 1906 Season will be An Even Better "Buy" for 1907— The Yale=California Motorcycle.

See it at the

GRAND CENTRAL PALACE SHOW, NEW YORK, DECEMBER 1-8.

More power; more speed; improved grip control; new tank; noiseless muffler and a cushion fork that is a real cushion.

Two out of three Yales finished the strenuous F. A. M. endurance contest; three out of four made perfect scores in the Chicago endurance test.

THE CONSOLIDATED MANUFACTURING CO., Toledo, Ohio.

IRELAND WAS INTERESTING

**But Not all its Roads are Good, as the
Globe Girdlers Found—Their Mounts
Excite Curiosity.**

Dublin, Ireland, Oct. 15.—Ireland is an ideal place for cycling, so we have found it, and we have traveled on our wheels about 300 miles in the Emerald Isle. Everywhere that we went we were impressed with the spirit of geniality shown by the people toward Americans; with the quaintness of the land and with the charming scenery.

We boarded one of the Royal Mail steamers at Glasgow late one rainy night, and watched the lights of Scotland fade



GEORGE E. HOLT

away without much regret, for Scotland had not treated us right in the way of weather. Even her tears when we left failed to affect us, for we had found that they were sincere only as regards perseverance.

At 5 o'clock the next morning the ship tied up at the Belfast landing stage. We stayed aboard until 7 o'clock, having learned that nobody gets up here until the rest of the world is at work. Then we went ashore and put in two hours riding about the town. To the American cyclist abroad we would advise that he make it a point on reaching a strange city to arise early the first day, before the natives are out of bed, and wheel through the streets; for in this way one can learn more of a town in two hours than in two days by cycling through noisy crowded streets where, if he be a human man—his attention must be always for the pedestrian—or himself. We have found this to be extremely beneficial in learning a town, and after doing it, we do not have the slightest difficulty in getting about.

About 8 o'clock the city began to wake up, and an hour later it was ready for business and we were surprised to find what a busy Americanlike place it was. After the customary sightseeing in the commercial and business capital of Ireland, we lightened our wheels by removing all unnecessary luggage, and set out for a 200

mile ride through the north. We had hardly left Belfast, following the eastern coast, when we decided that we had struck a paradise, not only for cyclists but for anyone who loves beautiful scenery. The road was one of the best we have ever met with. It lay beside the sea and was absolutely level. On one side the blue ocean waves rush upon the smooth sandy beaches, or dashed against rocky parapets; huge jagged rocks broke the waves a short distance from the shore; sea gulls flashed their white wings just above the waves; the smell of the sea was in our lungs. On the other side fortresses of rock—of white limestone or sandstone of red or brown, mighty battlements of granite, guarded the green, fresh valleys between them. Now and then we passed beneath natural arches of stone, saw crumbling ruins of ancient strongholds perched upon the cliffs, stopped to watch the dash of the sea upon some stubborn rock, or sat by the wayside to admire some quaint white cottage nestling far up among the purple hills, the blue smoke from its chimney curling like a wreath above it. For over thirty miles this panorama was unfolded to us, and then the night coming on, we stopped at a little village by the name of Glenarm and put up for the night. Our decision was, then, and still remains so, that the road from Belfast to Glenarm is the finest road in the British Isles.

Not much can be said of Glenarm; it is merely a typical and picturesque Irish village, but like nearly all Irish villages, it has its old castle. We rode out to see it early the next morning and while the castle itself is not particularly spectacular, the little river which runs by it and which is crossed by two stone bridges forms a very beautiful spot. After appreciating it, we continued our run along the coast for about 20 miles to Cushendall. It may be explained that "Cush" means "foot" and the name Cushendall signified "Foot of the Doll," that is, the Doll river. Here we bade farewell to the sea, and struck over the mountains. We walked. After we had gone perhaps eight miles with now and then a bit of road which was rideable, we struck the descent. We coasted for a distance nearly equal to that which we had been forced to walk. We had nothing to do but hold on to our machines and pray for easy curves. One gets out of the habit of using coaster brakes after climbing hills for eight miles. About half way down we heard a biff, and then a long-drawn-out-rattle. We stopped suddenly. Coaster brakes are a good thing after all. Looking back we saw our camera lying in the road. It looked at us mournfully out of several newly-created gashes in the leather covering. We didn't blame it; a camera isn't built for that sort of thing. At the end of our descent was Ballycastle and here we again sighted the sea. The road, however, was among the hills, and was none too good for the twelve miles to the Giant's Causeway—our

destination. The Causeway is said to be a disappointment to most people. It was to us. Aside from its peculiar geologic formation, which is interesting, we saw nothing to become ecstatic about. The guides, of which there was a small army, seemed to think that we had come all the way from America to behold the pillars of the Causeway or to examine each and every individual column with a microscope. We looked, saw, and OK'd the exhibit, and rode to the little village of Bushmills, which is noted for its whiskey and for the salmon and trout in its river. We saw nothing of either—although, after trying the fishing, we concluded that the village's fame must depend entirely upon its whiskey.

From Bushmills, near the northern coast of Ireland, we rode along the banks of the



LESTER R. CREUTZ

Bushmills river for a few miles and then left it for the road to Dervock, near where, we had been told, was located the ancestral home of William McKinley. Upon riding into Dervock, which is a place of about a thousand people, our attention was attracted to the emblem of the Royal Irish Constabulary above the doorway of a small whitewashed building. Curious to learn what sort of fellows the country representatives of King Edward might be, and also to find out if one might square matters if caught riding on the foot paths, we stopped and asked permission to leave our wheels in their care while we took in the town. Permission was readily granted, and we found that the constabulary were a pleasant lot. They were more than interested in us and in our wheels, and when we told them of our tour, they "laid themselves out," as the phrase is, to show us a good time. The duties of the constabulary are not very heavy, and they went fishing with us—with the same results as at Bushmills—showed us where to get our meals, escorted us to an interesting little village a few miles away, and in the evening two of them called upon us at our hotel. They were much interested in our wheels and were inclined to think them more compact and graceful than the English wheels. Everywhere we stop, especially in the larger cities, our wheels are at once surrounded by a crowd. In fact, several times

we have been obliged to take them into some store to prevent the blocking of the street or sidewalk. At Dublin we had the most amusing experience—but of that more later.

A short distance from Dervock we found the McKinley home; a low white, straw-roofed cottage, just like a thousand others in Ireland. It is now used as a storehouse by the farmer who occupies a more commodious dwelling beside it. It was from here that William McKinley's grand-father emigrated to America in 1838.

From here we proceeded southward through many villages and several towns, including Ballymoney, Ballymena and Antrim, and then, after a short run were back in Belfast.

From Belfast to Dublin is 112 miles. We took it leisurely, wishing to study the people and the country. Here we found the poverty of the people more apparent, but their cordiality and kindness not one whit abated. We passed many an ancient church, many a mouldering castle, now and then a cromlech or monument of a time in Ireland when the Druids offered sacrifices upon stone altars. We rode through Drogheda and there crossed the Boyne river, where took place the famous 'battle; through villages where St. Patrick labored; through Balbriggan, noted for its textile manufactures. We saw several of Ireland's famous "round towers," and many other things of interest, though more modern. The oldest place we have seen in Ireland is Carrichfergus, on the eastern coast, whose life dates, it is said, to the third century before Christ.

Upon arriving in Dublin, the capital and seat of the victory, we had an experience which was somewhat amusing and somewhat embarrassing. We stopped on one of the main streets to ascertain the location of the office of the American Consul. One of us took charge of the wheels, while the other went to make inquiries. On his return some five minutes later he saw no trace of cycles or cyclist. Finally a person informed him that his friend was in one of the stores. The fact is that so large a crowd had been attracted by our Reading Standards that the police had had to ask that our wheels be taken inside, as the crowd was interfering with traffic not only on the sidewalk but in the street as well.

George E. Holt.

Lester R. Creutz.

Reading Electrics Elect Officials.

The following officers have been elected by the Electric Wheelmen, of Reading, Pa., to serve during the ensuing club year: President, Clayton C. Ludwig; vice-president, Edward Winters; treasurer, Neff H. Rhode; financial secretary, James Simon; recording secretary, J. Harry Reber; captain, Neff H. Rhode; chairman race committee, Neff H. Rhode; steward, Victor Houser; trustees—John Brison, Ralph Hassman, John Kuhlman, Phillip Wachat.

GRAFT IN CYCLE RACING

How Even the Clubs are "Worked" by Crafty "Sportsmen"—Six-Day Grind a Fertile Field.

As a rule and one which has few exceptions, professional bicycle riders are grafters, and a wealth of explanation is not necessary to prove the contention. Any one who has had much to do with the "pros" will realize the truth of the statement only too well. Professional riders will graft bicycles from manufacturers, ride some other brand of machine when the manufacturer or his representative is not looking or sell them at much less than even dealers can buy them for, graft sweaters and even money from clubs, and—in fact, graft anything and everything that is graftable. It seems to develop the moment the chase for coins begins—and instances are not wanting to indicate that the spirit is not dormant even in the amateur ranks.

One of the forms of grafting is one in which one or more clubs are made the victims. This particular kind is also done by amateurs, but "simon pures" do not figure in this disclosure. As the annual six-day race approaches the professional riders who may have cast their eyes longingly on the big money they imagine they are going to get, are making efforts to ride for some one or more of the numerous cycling organizations that exist. Undeniably, there is some benefit to be derived from having a team ride with a club's colors, particularly if that team happens to be a good one or should by good fortune manage to win the race—but is it worth the price?

It must be understood that these "colors" are constituted of sweaters of varying hues and combinations of hues, some of them so alarmingly loud that they fairly shriek for themselves. Sometimes they bear the club emblem on the front; more often they bear the name or initials of the organization on the back and in letters of a size that make the wearer appear like unto a speeding billboard.

The advantage to be gained by having a team ride for a club is in the nature of general advertising. The six-day race attracts, perhaps, 100,000 people during the course of its running. Of that number maybe 10,000 are directly or indirectly interested in cycling. The name of the organization is therefore brought before the public in a manner impossible otherwise, and the club is talked about. "That is a live club," some will exclaim, and a few cyclists might thus be induced to add their names to the membership roll. But what of the cost?

At this present day cycling clubs are not, figuratively speaking, rolling in wealth, and when a sum of money is asked for to defray some expense, if the club's coffers will

or cannot stand that expense, it is the half-dozen or so of the elect who dig down in pockets that have been often emptied before for similar purposes, that make up the deficit. Several clubs have been in the habit of entering a team in the annual Madison Square Garden grind, and it is common report that one club paid a certain pair two hundred dollars to wear the sweaters of their organization in the race a year or so ago. Of course, the club furnished the sweaters. Net result: loss of \$200 and the sweaters besides numerous other little perquisites. At the present time a well known pair of six-day riders and, it might be added, "grafters," have let it be known that they are open to engagements, or in other words, propositions. They are telling each club something like this: "The Blank Wheelmen have offered us \$50 to ride in the six-day race for them, and we have accepted, but if your club will give us \$60, we will put your sweaters on our backs." Such gall! If the clubs would unite in putting on their backs sweaters of tar and feathers, it would be more deserved. Which leads to the point of this story.

There is one New York club that has taken a decided stand in the graft question. Its policy was outlined at the beginning of the racing season this year by inserting in the by-laws a provision that made it impossible for riders, no matter how good or near-champion-like they happened to be, to get club sweaters at the club's expense. Several riders were presented with sweaters, but they earned them, and they were paid for by subscriptions from individual members. The rule worked well although the club suffered somewhat in membership, but it was gratified to discover who were the grafters, and even more pleased to drop them from the roster, albeit they were crack riders.

That organization—the Roy Wheelmen—has sent a letter to all large clubs in the metropolitan district asking them not to pay any actual cash to any of the six-day riders to represent their respective organizations, pointing out the fact that the "pros," when they find there is no real "easy" money forthcoming will be only too glad to accept sweaters, for professional riders are averse to paying for anything they can get for nothing. The club that is sending out the letter will have three teams wearing their sweaters, but it is stated upon the authority of the president, that the professional riders who will wear the colors of the Roy Wheelmen, which is the club in question, are bona fide members of the organization they represent. The teams that will ride for the Roy Wheelmen are, Emil and Leon Georget, Petit-Breton and Carlo Vanoni and Arthur Vanderstuyft and Johan Stol. Root and Fogler will probably ride for the club that they belong to—the National Athletic Club of Brooklyn—and C. L. Hollister and W. M. Samuelson are said to be going to represent the Century Road Club Association.

NOT FOR THE "BUTTERFLIES"

One of the Hardier Type Pictures the Charms of Winter Cycling—Why He Favors it.

"The butterflies, both etomological and cycling, who have revelled in more sunny days this year than for many a long year past, have by now folded their wings, and will be seen no more until the spring of 1907. But those 'butterflies' and those other ephemeral cycling insects whose winter riding is regulated by the number of sunny and windless days which occur between November and April constitute perhaps the majority of the sum total of cyclists, there remains a very considerable minority which refuses to be deterred from active cycling by any ordinary meteorological conditions, and which in consequence extracts a vast amount of pleasure and profit which the summer cyclist never dreams of," says a writer in *Cycling*, in discussing the pros and cons of winter bicycle riding.

"We may allow that for that type of cyclist to whom the 'three-turns-and-a-free!' style of riding appeals, dry roads and a warm atmosphere are desirable and even indispensable accompaniments of the pastime; this variety of cyclist can hardly be expected to do otherwise than wrap up and stow away his machine about the middle of October, for the shock to his (or her) feelings which the sight of a really muddy bicycle would give would only be equalled by the physical shock which would result from being out of doors (possibly in a hailstorm or a thick fog) with the thermometer in the neighborhood of freezing point. To the typical 'butterfly,' then, these remarks need not be addressed; it is an insect which no doubt has its allotted place in the scheme of cycledom, just as its etomological namesake has a place in the scheme of animal creation. Its beauty of form and color may delight the eye of the observer; the fickleness and irresponsibility of its nature may amuse some and irritate others, but it will probably be caught sooner or later in the net of the motorist, and it need not on any account be regarded seriously by the student of cycling. But when we come to consider the much larger and the much more rapidly increasing section of the cycling world, which we may call the fine weather cyclist, and which is, therefore, very largely a summer cyclist, we cannot treat the matter with that indifference with which we treat the 'butterfly.'

"Why is it that out of every hundred cyclists—keen cyclists, riders who are really enthusiastic over the pastime—about sixty practically go into winter quarters in November and stay there till April? They may, it is true, be tempted now and again

by a bright, still day in winter (days which come far oftener than the unobservant imagine); they may, indeed they probably will, take an occasional week-end run with their club, if it indulges in this excellent institution in the winter, or with a friend; and they are almost certain to make one of the party which celebrates Christmas in the next best way to forming one of a jolly big family gathering—namely, by having a Christmas holiday tour on wheels; but, for all that, they are not all-the-year-round cyclists, and they know it; they do not profess to be; they make no secret of talking about 'the season' and the 'off-season' and arranging their plans accordingly.

"This is all wrong. Cycling need not and ought not to be a summer pastime only. Delightful and beneficial as it is, to spend the long, warm days of summer lazily or energetically on the wheel, there is no reason why this pleasure and profit should be turned off at the tap for several months in the year. There is no reason for it, because cycling is not like cricket or football, suitable for warm weather or for cold weather only, and there is not the slightest danger that cycling will become stale, flat, and unprofitable when practiced all the year round, for this simple reason, that summer cycling and winter cycling are really two very different things; they take place under a different set of conditions, they call into action a different set of physical and mental requirements, and they repay the rider with a different form of pleasure and profit.

"To those who know no season in their cycling, who make use of their bicycle as regularly and as naturally and instinctively as they eat their breakfast, smoke their pipe, have their bath, get through their work, and so forth—to these the approach of winter brings anticipations not of dread, but of renewed delight. The stormy wind, the greasy road, the frosty air mean not the wrapping up and the storing away of the bicycle, but the unwrapping of the 'poncho,' the screwing or strapping on of the winter mudguards, and the looking out of pilot jackets, cardigans, sweaters, woolen gloves, and comforters; like a war horse, his eye lights up as he sniffs afar off the battle against the forces of nature and prepares himself to withstand their shock; and surely this is a pleasanter and more profitable way of spending the winter week-ends than shivering at a football match, smoking and drinking in a billiard room or a saloon bar, or lounging the daylight away by your fireside at home—and, mark you, a vast amount of these three questionable 'pass times' as indulged in by the youth of England, not because the latter are in themselves particularly lazy or particularly vicious, but simply for want of something better to do; they are content to accept the dictum of their female relations, or of the cycling writer in the outside press, that cycling is a summer pastime, and that the bicycle must be put away at the end of

autumn until the beginning of the following spring; they have never given winter riding a trial; and because, perhaps, they have been caught during the summer by an unexpectedly cold or wet day when they were not prepared for it, and have not liked it, therefore, they have condemned the pastime as unsuitable and for any but dry, warm weather. But what are the facts? And what is the testimony of every cyclist whose enthusiasm for the game has prompted him to try winter riding? Directly contrary to the opinion of those who have never tried it....

"Should we be justified, think you, in calling the bicycle the king of all locomotive vehicles if its locomotive powers were paralyzed for six months out of the twelve? Would it be reasonable to claim cycling as the finest all-round sport, pastime, recreation, and exercise in the world if for 182 days out of every 365 it could be thought of, written about, longed for, but not indulged in?

"And why should it not be indulged in all the year round? Is there not as much physical pleasure to the healthy body which envelops a healthy mind in the keen snap of a December day as in the balmy warmth of June? Does a man take less delight in pitting strength and skill and the indomitable resolution of his heart against the onslaught of a cold north wind than in 'lazily letting his legs go round' before the gentle breezes from the south? If the 'butterfly' sound the praises of Zephyrus, shall not the cyclist sing a song to Boreas? Are we to feed forever on the roses of our cycling life and lie all our days in its lilies? May we not, nay, must we not, vary the sickly sweetness of a milk-and-honey diet with something in the nature of bitter beer and mixed pickles?

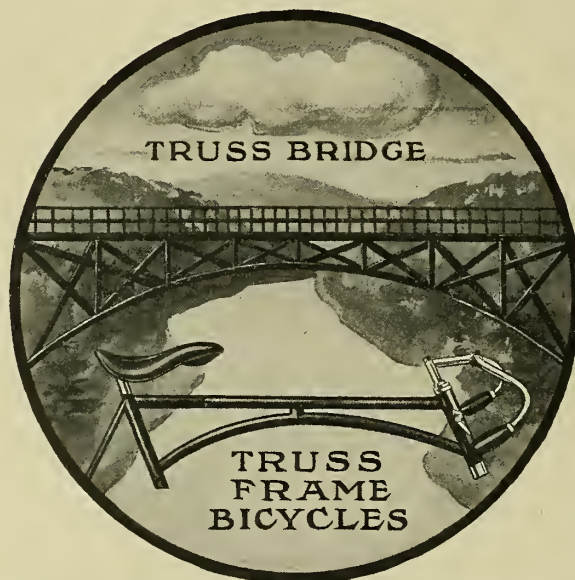
"And what of nature herself? Is that inexhaustible book whose pages the bicycle has opened for so many of us to be sealed up for six months out of every twelve? Does nature wrap herself up in red flannel and daub her body over with vaseline from October to April? Are the pink of the apple blossom and the purple of the heather the only colors on her mixing palette? Is there no beauty in a snow-clad hillside, no rapture in the rime upon the hedgerow, no color in the red of the robin's breast, no music in the crackling of the bicycle tire as it spins along a frozen road? And, if so, why may not the cyclist see and enjoy them all?

"If one thinks it out seriously by the fireside one must come to the conclusion that winter riding has charms; and if one puts one's theories into practice and rides all winter, one cannot but discover that these charms are worth cultivating."

"The A B C of Electricity" will aid you in understanding many things about motors that may now seem hard of understanding. Price, 50c. The Motor World Publishing Co., 154 Nassau Street, New York City.***

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1907 CATALOGUE NOW READY

GENDRON WHEEL COMPANY, = = Toledo, Ohio

WHAT THE BOYS ARE DOING NOW

How the Former Crackerjacks of the Path
Have Scattered and How They Now
Earn Their Salt.

Where are the old favorite bicycle racing men of not the earliest but the later generations, and what are they doing now? That is a question that is being asked frequently by the "fans" of bygone days and one that is difficult of answer offhand. Some are dead and most of them forgotten, others have gone into obscurity while a few others are still public men to-day, or rather, in the sporting public's eye. The training which was necessary for their success in the bicycle game kept them—some of them—in the straight and abstemious lines at the most critical period of their young manhood and most of this class have stuck to the habits then formed. Of course, there are exceptions, but such only go to prove the rule.

"Tom" Cooper, well remembered by some of the present racing generation, has probably been as successful as any racing man in a financial sense. At the time he was winning big purses he invested every cent he made in the stock of a telephone company then forming in his home city, Detroit. As the result he is estimated to-day to be worth over \$100,000. His exact fortune is not known, for Cooper always was reticent when monetary matters came up for discussion. By some he was called "stingy," but what racing man is there who has not been called penurious, if he did not want to be a meal ticket for every human sponge on the circuit. Cooper is now very much interested in automobiles and is making good.

Earl Kiser, the popular "Dayton Dump-ling," is in Pittsburg, Pa., with an artificial leg, the original member having been lost last year in an automobile accident on the track. He is also in the automobile business and is making money.

Jay Eaton, at one time invincible at the Vailsburg track and on the flat floor, has taken to horses and "follows the ponies" most of the time.

Arthur Gardner, another old favorite, is in the automobile business in Chicago, and sees a good part of the country traveling for a manufacturing concern.

Frank Cadwell has gone into the restaurant business and is doing well, for the last time the *Bicycling World* man ran across him, he had on a white vest, patent leather shoes, a tailor-made suit of clothes and wore diamonds, at least they looked like the genuine article.

W. W. Hamilton is in business at Denver, Colorado.

Otto Maya, since his father died recently,

and left him a hotel and a roll that would choke a hippopotamus, has been reclining in an arm chair at Erie, Pa., and taking life easy.

Warren Zurbrick has developed into a prize fighter and is making money in the West.

Barney Oldfield has become famous in the automobile racing world and holds many records in that line of sport. If he is not squandering his money he ought to be comfortably fixed for life. When he was a rider at Vailsburg he added to his income by doing an amateur trucking business on the side.

John Fischer is with the Pope Manufacturing Company testing automobiles and drawing a good salary.

Howard Freeman has attained his ambition, has a comfortable apartment on 112th street, New York City, a studio down town and holds the responsible position of art editor of *Pearson's Magazine*.

Eddie "Cannon" Bald follows the automobile racing circuit when he is not testing automobiles and driving a phony car before the footlights in a thrilling race for life.

With A. B. Stone, "Charley" Hadfield is on the road with a theatrical troupe doing a "globe of death" stunt.

Tom Butler is with the Barnum & Bailey circus looping the loop.

Black "Major" Taylor is at his home in Worcester, Mass., living off a comfortable income due to his judicious investment of his winnings.

George Collett is the New Haven "big gun" of the Prudential Insurance Company and in a recent letter to an old-time friend and racing man said that he had rolled 300 in a bowling game and that his wife had presented him with twins.

"Jakey" Jacobson is one of the confidential men of the Winchester Arms Company. He, too, has married and is the proud father of a family.

E. C. Hausman is reported to have died recently, and dapper Willie Reitz, his former chum, is selling automobile tires in New England.

Jimmie Hunter, August Mertens and Joe Nelson are driving automobiles. Carl Limberg, better known as "Cheese," is making money faster than he can spend it, and is driving a millionaire's car for relaxation. Burton Downing, Limberg's chum, is confidential man to a big New York contractor.

Oscar Hedstrom's inventive genius has led him to motorcycles, and he is one of the best known motorcycle men in the country, being designer of the Indian.

W. W. Taxis is in the automobile business in Philadelphia. Herb Githens, the McDuffie brothers, the Banker brothers and Sid Bowman are also in the automobile business, while "On the Spot" Spooner and Charley Wells are taking pictures of anything.

J. P. Bliss, the one whom the fans used to dub "Pye" Bliss, is running a billiard

parlor in Denver, and "Dute" Cabanne, who was one of the stars of 1894, is in the automobile business in Erie, Pa. Arthur Lumsden, another of the Western stars, is in London selling Goodrich tires.

The five Coburn boys have all settled in Newark, N. J., and still are familiar figures at every racemeet in the locality. Dave is in the automobile business, Jack is an artist, draper and decorator, William is with the Prudential Insurance Company, and Louis and Thomas are successful wood carvers.

Orlando Stevens, of the famous "I and Stevie" team is making money in the produce business in San Jose.

"Plugger Bill" Martin owns a hotel near Melbourne, Australia.

Al Newhouse is in New York City driving an automobile and Owen Kimball is traveling for a tobacco firm in Terre Haute, Ind.

"Long Bill" Furman is a telegraph operator for the Associated Press at Los Angeles, Cal., and Earl "Doggie" Stevens is running a locomotive on the New York Central.

"Mike" Dirnberger and Lou Callahan are both in Buffalo, the former having a lucrative law practice, while Callahan is a ticket broker.

Jimmy Bowler sports a white vest now. He is an alderman in Chicago.

John Johnson is running a garage at Trenton, N. J.

Last, but not least, is Arthur Zimmerman, the greatest racing man the world ever produced. "Zimmy" is taking life easy in his hotel down at Point Pleasant, just across the Squan river, his old home, and in the summer amuses himself by fishing and riding his bicycle for pleasure, for "Zimmy" still cherishes his first love.

There are hundreds of other former racing men scattered over the country, engaged in various pursuits, and with very few exceptions, each of the old favorites seems to have done as well in business as he did in the bicycle racing game.

Wray Runs Away at Philadelphia.

What was probably one of the most interesting races at the automobile race meet held by the Quaker City Automobile Club on the Point Breeze track, Philadelphia, last Saturday, was the three mile race for motorcycles. Before the race, the two-cylinder Simplex ridden by W. H. Wray, Jr., of Brooklyn, N. Y., was protested, it being contended that the engine was rated at six horsepower, but Wray proved to the satisfaction of the judges that it developed only four horsepower, and he was allowed to start. He ran away from the large field and finished with plenty to spare, covering the three miles in 3:53½ and covering the second mile in 1:10. A. L. Hilaman, on a Curtiss, finished second and Alex. Klein, who rode a Davidson, rode under the tape in third place.

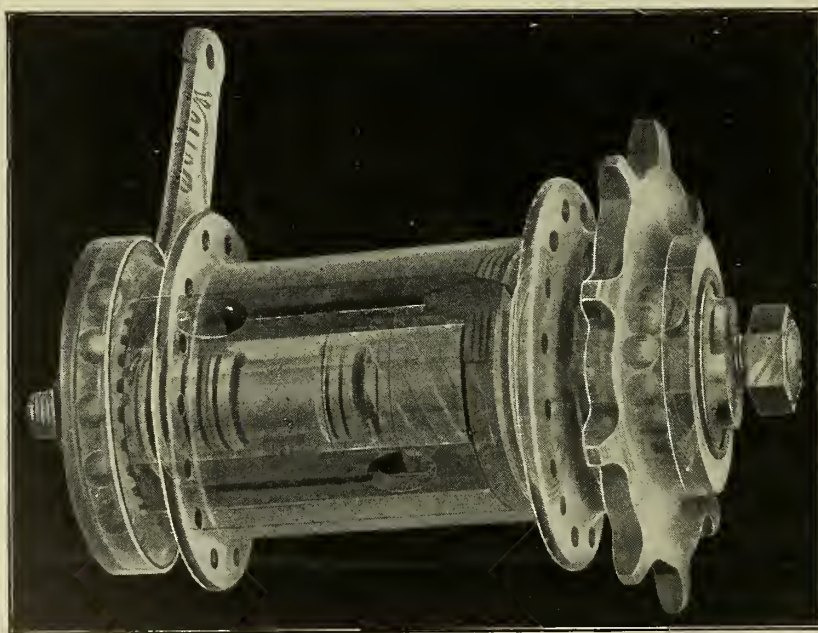
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for an answer

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All manufacturers will supply them, although one may be found occasionally, who for convenience sake, may require a little urging. The Morrow adds so much to the pleasure and satisfaction of cycling, however, that insistence on the part of the dealer or rider is well worth while. Insist on having the Morrow and you'll get it.

ECLIPSE MACHINE CO.,

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CYCLE STEALING IN SAN JOSE

Has Reached Large Proportions and Remedies are Difficult—Small Boys and Crooked Dealers Involved.

Cycle stealing has for some years been away above par in San Jose, Cal., and though the police have been making what appear to be laudable efforts to stamp it out, it still continues to be a remunerative occupation for a number of enterprising operators. The second-hand dealers are said to be directly responsible for the evil through their readiness to handle machines of doubtful pedigree, and their realization of the fact is evidenced by the readiness with which they make restitution when cornered "with the goods."

A recently settled case is one which had been on the police books since last June. On June 25th A. E. Carter had stolen his bicycle which he had bought new only a couple of months previously, the theft being reported to the police next morning, but without immediate result.

A short time afterward a small boy rejoicing in the name of Manfre, brought into the cycle shop of Davis Brothers, at 449 South First street, an old and much dilapidated wheel, the frame of which he exchanged it for one which was practically new at a cost of \$2. Still later he returned and purchased a pair of second-hand wheels, a pair of handlebars and a seat. After a month had gone by, he exchanged these parts for others at the cycle shop at the corner of Alameda and Stockton avenues. A third exchange was also made at another shop.

Several weeks ago the youngster brought the composite mount into the shop where Carter's wheel had been purchased originally, and portions of it were at once recognized as belonging to the missing machine. After being put through a "third degree," Manfre confessed partially, and told where he had obtained the parts in question. The matter was put into the hands of an attorney, and Davis Brothers visited. They claimed to have purchased the parts from another small boy at an insignificant figure, and were highly incensed at the aspersions laid upon them. When, however, they learned that Carter was about to swear out a warrant for them on three complaints, that is to say, buying from a minor, and buying and selling stolen goods, they changed their tune, and presented Manfre, the boy, with a brand new high grade bicycle, entirely free of cost. The police thereupon took possession of the patchwork bicycle, recovered a few other of its original components and returned it to its owner, who immediately ceased prosecution.

Methods such as these which are constantly in vogue, are doing much to frus-

trate the efforts of the honest dealers to protect their patrons and themselves. The close shaving of the law's demands by the crooked shysters is so well regulated and timed so nicely that it is almost impossible to get at them with any prospect of success. Their trade is encouraged by a large number of small boys and unscrupulous elders, and by close contriving and occasional side-stepping, as in this case, they manage to get on without coming into direct conflict with the authorities.

Damage Barbed Wire Can Do.

Barbed wire has never been regarded in a particularly favorable light by the cyclist for reasons that it is quite unnecessary to mention, and there is at least one cyclist in particular who will have a deep seated aversion to it and all of its kind for the remainder of his natural life. He was riding along the side of the road at a good speed when a little girl suddenly ran out of a house toward him. In order to avoid her he swerved suddenly to the right and came up all standing on the barbs of the fence to which he found himself fastened by the nose. And more than that, the member in question was so nearly slit in twain by having traveled along the barb for its entire length that the surgeon who attended the victim of the accident found it necessary to resort to the use of two silver clasps to keep the bifurcated organ together. It is hardly necessary to add that his friends failed to recognize him in his new and ornamental setting.

Motorcyclists in Scrub Race.

To fill in the program at the continuance of the Election Day race meet of the New Jersey Automobile and Motor Club, held at Waverly Park, N. J., last Saturday, 10th inst., a scrub race between J. W. Ward, on a two-cylinder Indian motor bicycle, and Bob Hunter, who straddled a 14 horsepower French pacing bicycle, was run. It went for three miles and was the most exciting event of the afternoon, it being nip and tuck until the last lap, when Hunter, who has a tendency for playing to the grandstand, went to the front and won out by 100 yards. The time was 4:05, which is very good going for a half-mile dirt track.

Modernizing the Chimney Sweep.

That the motor bicycle may be put to any number of uses either for pleasure or profit, has been pointed out time and again. Some years ago a chimney sweep on the Ayrshire coast startled the natives by carrying his "implements of war" on a tricycle and he is still a familiar figure on the road between Irvine and Troon. But he is not now the most mobile and up-to-date manipulator of the soot brush, for an enterprising English Chimney-sweep has impressed into his service the motor bicycle, with a trailer attached for the accommodation of the soot bags and other appurtenances of his profession.

WHAT CYCLE CHAINS WILL ENDURE

One Used by "Grand Old Man" of Cycling as an Interesting Example—Lasted for 31,000 Miles.

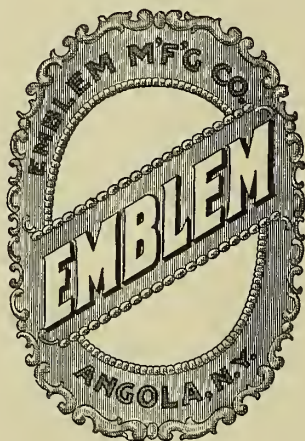
Those riders who complain of the short life of various portions of their mount, probably seldom reflect on the remarkable performance of the parts which endure. Indeed, the very fact that a part lasts indefinitely is frequently sufficient to cast it almost out of mind until such time as its term of usefulness expires. Thomas W. Davis, the famous octogenarian bicyclist of Peoria, Ill., is not of this class. Companion to his hobby of riding, he has that of comparing the performances of the components of the machines he has ridden through all these years. The result is that he has a fund of comparative information of rare extent, and all drawn from the results of his own observation. One of the most recently gathered fruits of this harvest has definite bearing on the endurance of the driving chain, particularly with reference to the relative wear brought about by the use of the fixed wheel and the free wheel with coaster brake.

This week Mr. Davis sent to the office of the *Bicycling World* a section of a chain which he has driven for considerably upwards of 20,000 miles, remarking at the same time that with the old type of fixed wheel he never got more than 11,000 miles out of a single chain. This one has been used with a coaster brake altogether. In proof of the long service which they have rendered, the links show a very great amount of wear and are so weakened at the ends of the blocks that but for the steady pedalling of the rider, they must have given way long ago. There are three complete links in the section, the blocks of which are worn on both ends. One end is worn much more than the other in each case, however, and at these points the metal has been chafed away until the rivet is revealed at the centre in two out of the three cases, the hole being perhaps 1/16-inch in diameter. At the sides, where the pressure of the sprocket tooth was less than in the centre, the wear has been less, and consequently a sharp fin is developed on either side, practically marking the contour of the original block. Evidently the sprocket must have worn simultaneously in order to produce this effect, and, indeed, Mr. Davis remarks that this is true. The rivets have worn somewhat and the holes enlarged also, so that the resulting backlash gives an end play in the three links equivalent to about 3/64-inch.

"Motorcycles and How to Manage Them." Price, 50 cents. The Bicycling World Co., 154 Nassau Street, New York City.

With our up-to-date line of bicycles we are now prepared to take orders for our

Emblem



Motorcycles

Emblem Manufacturing Co., Angola, N. Y.

REPRESENTATIVES

J. T. BILL & CO., Los Angeles, Cal.

BALLOU & WRIGHT, Portland, Ore.

Hudson

WHY?

Hudson

Why are "Hudson" bicycles the most popular? Is it because they are equipped with D & J hanger? But why are the D & J hangers so popular? They have never been so extensively advertised as other hangers and their cost has been so high that other manufacturers use them only when compelled to.

We are getting out a book entitled "Why" for fifty of the best answers to the above. We will send copy of the book entitled "Why" in connection with a souvenir that will come in handy.

1907 Hudson Bicycles

WILL LIST AS FOLLOWS:

Model "A"	.	\$50 00	Model "B"	.	\$40.00	Model "C"	.	\$30.00
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THE HUDSON MANUFACTURING COMPANY

Main Office and Factory, HUDSON, MICH.

WE DISTRIBUTE TO AGENTS FROM THE FOLLOWING POINTS:

New York, New York Sporting Goods Co., 17 Warren St.	
San Francisco, Cal., Baker & Hamilton.	Worcester, Mass., J. W. Grady, 14 Austin St.
Denver, Colo., Scott Supply & Tool Co.	Atlanta, Ga., Alexander-Elyea Co.

Hudson

Hudson

PLAYING TRICKS WITH TUBING

England Thus Accounts for Cheap Bicycles and Details Some of the Devices That are Employed.

It has been a matter of surprise to observe how many of the English bicycle manufacturers contrived to keep in business after the epoch of price-cutting which was the general policy of last year and the year before. That in many cases the grade of the output was maintained at its old standards, a shaving of profits and clever manipulation of factory costs, serving to eke out the income to a certain extent and enormous output doing the rest, was known to be true. But the sharp competition forced down the prices of a hundred and one machines of already doubtful quality, and the only wonder was that production was continued. Now, however, a partial explanation is furnished in the confidential warning of an exchange, issued "to the trade only," in which a statement is made to the effect that large quantities of discarded boiler tubing, lap-welded in the beginning, and frequently burnt part way through, from heavy usage, is being supplied to the makers of the "cheap and nasty" class by unscrupulous iron-monsters. The assertion, and the following description as to the manner in which the trade is carried on, furnishes some light on the methods of a portion of the industry, and is in itself sufficient explanation of the short lives of some of the less known machines, most of which are farmed out in the country on the "deferred payment system."

"Verily these days of cheap bicycles are hard on the unwary cycle agent, for if anything goes wrong with a machine, it is the agent who sold it that gets the brunt of the irate rider's wrath," runs the warning. "Cheap tires were bad enough; but, after all, they only meant more punctures and shorter life for the tire; it was seldom anything serious that resulted from them. In the matter of frame tubes and steering columns, however, the case is very different, for a broken tube may mean sudden death, and even a buckled tube means a new frame or an expensive repair job.

"Some time ago we received warnings of steering tubes being sold in the trade, which were made of lap-welded boiler tube. This in itself seemed quite startling enough; but when we came to investigate the matter further, a state of affairs stood revealed which, in its far-reaching effects, might almost be compared with the Chicago tinned meat scandals. 'Lap-welded boiler tube,' plain and simple, merely suggests a rough-looking tube with a fairly noticeable seam along it, such as an agent of any experience would spot in a moment; but our enquiries have disclosed a far more subtle game on

the part of the wily vendor of cheap and nasty tubing.

"It appears that the cheap tube in question is nothing more or less than old condemned fire-tubes from locomotive boilers, which would, in the ordinary course of affairs, be sold as scrap at about 50s. per ton. True, it is steel tube, but steel of such a low percentage of carbon that it should be rightly reckoned as merely high-grade iron. When a locomotive boiler is worn out through burning or corrosion of the fire-tubes, these tubes are sold as scrap, as we have said, the tubes then being from 9 feet to 10 feet long, after allowing for cutting off the burnt ends, and from 1½-inch to 1¾-inch diameter, the thickness

just as an ordinary high carbon steel tube is drawn. In the result the tube comes out with a smooth cold-drawn surface, and cannot be distinguished from a high quality tube.

"Now, the evil in these tubes is two-fold. The lap weld still remains, for the drawing, while reducing the size and gauge, does not make the metal homogeneous—in fact, it has rather the effect of straining the weld and giving it a tendency to open. Secondly, the steel is naturally of a low grade, and is not in any way made more elastic by the heating and cooling vibration of the locomotive, and later by the drawing and annealing in the tube mill. Besides, a boiler tube may be caught by the fire midway of its length, in which case the drawing will merely spread and conceal a weak spot.

"The only real safeguard the small maker has against being 'had' with tubing of this description is to buy tubing made by reliable firms, and sold to him direct, or through reliable factors. Some of the well-known firms of tube makers pack their tubing in sets in proper boxes bearing their name and trademark, so tube in these boxes can generally be relied on, as the substitution of other and cheaper goods in a branded box is too dangerous a game for any but a hardened criminal.

"There are certain practical tests, however, to which tube can be submitted, which will generally reveal any defects in any supply an agent may have. A man used to file-work can tell pretty well the hardness of a tube by the way his file cuts into it, and, within limits, the harder the tube the better. Being satisfied that the tubing is reasonably hard, the next thing is to test the tenacity, and this can best be done by squeezing it in the jaws of a vise. First squeeze it on an oval—or, strictly speaking, an elliptical—shape, and then squeeze it back again, and go on doing this till something breaks. If there is a lap weld in it at all, this test is pretty sure to open it; and if the tube is merely hard, without toughness, it will probably break at the first squeeze. A really good tube will stand two or three squeezes before cracking, and then it will give a fibrous crack, and not a hard sharp edge. On the other hand, a common low carbon tube will squeeze up like lead, and offer very little resistance to the vise pressure, while the file test will corroborate the softness.

"Another kind of cheap tube is being put on the market, and by people who ought to know better, too; that is, a soft, low carbon German tube, steel right enough and weldless right enough, but certainly not of the kind suitable for high-class work. It might even do for handle bars and seat pillars, where there is little need of elasticity; but, unfortunately, owing to its ductility and softness, which mean cheapness in working, it is being largely used for chain stays, seat stays, and front forks, and the result may easily be imagined. How



NEW YORK BRANCH: 214-216 WEST 47TH ST.

varying considerably, and being made still more uncertain by the effects of corrosion internally or burning externally.

"These discarded tubes are then bought by scrap dealers, by whom they are sold to certain unscrupulous tube manufacturers to be turned into cycle tubing. Here let us state that the purchase of old boiler tubes by a firm of tube makers does not, of necessity, stamp them as unscrupulous, for these condemned tubes work down perfectly well for a variety of other purposes, such as conduit tubes for electric wiring and similar purposes, where they will be subjected to little or no strain; and many very estimable firms use them in that way—so much so, in fact, that the price of old locomotive tubes now runs into several pounds per ton, as against the ordinary scrap price they fetched a few years ago.

"However, to return to the cycle tube phase of the question: The dishonest tube-maker having purchased his supply of boiler tubes, proceeds to cut off the badly burnt ends, and then draws them through his regular dies down to the desired size,

often does one see machines with the chain stays pulled right round, owing to the chain jumping the cogs. In the good-class machine, a similar accident would have merely meant a snapped chain, or a buckled chain wheel—a far less expensive affair.

"Also one sees front forks knocked back by a slight impact, which should properly mean merely a rebound of the whole machine. Needless to say, the big makers, with their careful arrangements for testing, do not get landed with these boiler tubes and German stuff. It is, as usual, the agent who suffers. This bad stuff is bought from the tube firms either by makers of very small machines or small tube workers—makers of handle bars, chain stays and the like—or by factors ignorant of the practical side of the trade, or else careless of everything else except the profit they may make."

Index to the Merchant's Character.

If a customer should chance to overpay for a purchase, no honest dealer would neglect to rectify the error. Should he forget a portion of the goods that he has paid for, they should be held for his return or sent to his address. But how about the man who thinks he knows just what will answer for a certain purpose but overlooks some point that is sure to bring him disappointment; is he always warned of his mistake? asks a contemporary.

Perhaps there is no more certain index to the business man's real character than the extent to which his conscience lets him profit by the mistakes of others. It may not be to the extent of keeping money wrongly paid or of failing to deliver goods the purchaser has forgotten. There is a passive as well as an active coöperation that commercial bug-a-boo, mistake, by means of which a good many men ease their conscience when it pinches them in a sore spot for putting into their pockets a profit that is not legitimate.

It really matters very little whether a man deliberately fools a customer or whether he lets the customer fool himself or connives with the clerks or with circumstances to do the fooling. If he takes advantage of the misbelief to profit at the other man's expense he has tested the elasticity of his conscience to an extent that will weaken it a little in the future. The customer may never find out the deception from his purchase. He will certainly discover its effect upon his deceiver in the course of time, if he remains a customer until the stretching is repeated often enough. Presently he will be heard remarking to some friend:

"I used to think H—— strictly honest, but of late he seems to be getting tricky. I wonder what has happened to him that has changed him so."

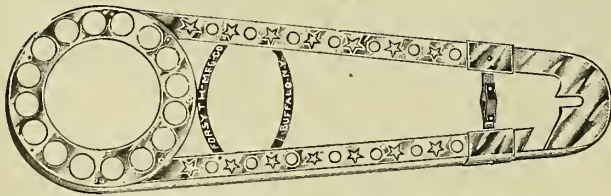
Nothing has hapuened to him. Nothing

has changed him radically. Instead of growing, he has stretched until he is weakened; that is all. It's a big step from a strictly honest man to a moral wreck, but not a very big journey if we stretch ourselves across the short-cut. Any of us could do it if we wanted to; indeed it is one of the surprising phases of human nature, and readiness with which conscience, stretched a few times to the straining point, adapts itself to the new demands and becomes less and less resistant to them until it finally becomes so pliant that it hardly restrains from anything at all that promises a little profit or satisfaction.

Oils That Make Worry and Work.

Castor oil and sweet oil may be better than nothing but the man who uses either of them as a lubricant for motorcycles is likely to regret it, as several riders have learned to their sorrow. Those oils find their way into practically every part of the motor—valves, piston head and rings, combustion chamber, muffler, timing gears and all other working parts and parts that do not work, and not only gum and clog them, but are almost literally baked thereon. Neither gasolene nor kerosene will remove the stuff and the cleaning is a long and expensive operation which entails the dismantling of the engine. It is a job that not many makers or repairmen relish.

FORSYTH SPECIALTIES.



Full Chain Guard with All Connections.

Made in sections and riveted together, giving enough elasticity to avoid the "twang" of a one-piece guard. Adjustable to stretch of chain and to differences of length between centers of axles.

FORSYTH MANUFACTURING CO.,

"Handy things to have about the house."

We also make

Mud Guard Fittings,
Sprocket Guards,
Metal Hand Brakes
and other specialties.

Buffalo, N. Y.



Half Guard with All Connections.

Notice the method of attaching front connection. Enough adjustment to meet the angle of any frame; a little feature all our own. It counts. These guards are just a little better than any others. That's why we are still making and selling lots of them.

Schrader Universal Valve.

(Trade Mark, registered April 30, 1895.)

NOTICE.

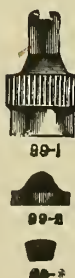
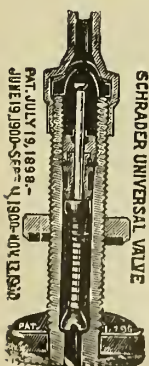
Manufacturers of Bicycles, Jobbers and Dealers:

In order to facilitate the obtaining of

PARTS of the
Schrader Universal Valve,

We have concluded to sell parts only to the general trade.

Parts 99-1, 99-2, 99-3, 99-4 may be had from all makers, or from A. SCHRADER'S SON INC. Price List sent on application.



SIMPLE AND
ABSOLUTELY AIR-TIGHT

Manufactured by

A. SCHRADER'S SON, Inc.

ESTABLISHED 1844.

28-32 Rose St.,
New York, U. S. A.



Hats and Saddles

Saddles and Hats

There's a big difference in hats; there's as big a difference in saddles.

No man with a poor hat can look his best or feel "just right" for any great length of time—and no one expects a cheap hat to last long.

It's the same with saddles. No bicycle with a cheap saddle can look its best, nor will its rider feel right, that is, comfortable, and, of course, there's no more durability in the cheap saddle than there is in the cheap hat.

A high grade hat usually will make a man look like a high-grade man and feel like one. The same is true of bicycles and saddles.

Lots of cyclists have no idea how much a high-grade saddle like the Persons will improve the looks of their mounts and add to their own personal comfort simply because they never have tried one.

Are you of the number? If so our catalog surely will interest you. It will enable you to specify the saddle you most desire, when you order your new mount.

The dealer can get it for you merely by a display of insistence. In fact, you will usually find that the really enterprising dealer carries a few Persons saddles in stock to meet the demands of old riders who are seeking saddle comfort.

Of course you can't expect to get a good hat for the price of a poor one and the same applies to saddles. But the cyclist who tries a Persons never regrets the slightly added cost. He saves money in the end; and the comfort and looks—they can't be measured in dollars and cents.

PERSONS MFG. CO.,
WORCESTER, MASS.

"Elastes," a New Tire Filler.

Despite the universal quest of mankind after economies, once they are stumbled upon a reflex movement usually strives to avoid them. Thus with the pneumatic tire always a success when filled with air, and never a success without it, there is a constant sifting of grey matter to find some plastic substitute for it by way of filling. The most recently developed of these is known by the suggestive name of "Elastes" and is a Continental production which is said to have been in use for some little time in France, but now is warmly endorsed by the English press, which announces that it has been taken up by a "great banking house and a great engineering firm."

"It is interesting to know that this valuable material is composed of ingredients which have long been known to produce, when mixed, a substance similar to india-rubber in many of its properties, these ingredients being gelatine, glycerine, and chromic acid," is the somewhat familiar announcement. "Heretofore, however, inventors have been unable so to mix, and so to manipulate whilst mixing, these ingredients as to produce a substance which, whilst having the resilience of india-rubber, is unaffected by changes of temperature and humidity. By the invention of Elastes these difficulties, it is said, have been overcome, and the material now made is found not only to be possessed of extraordinary resilience, but also to retain its nature, shape, and consistency under conditions of humidity and temperature varying through extremely wide ranges."

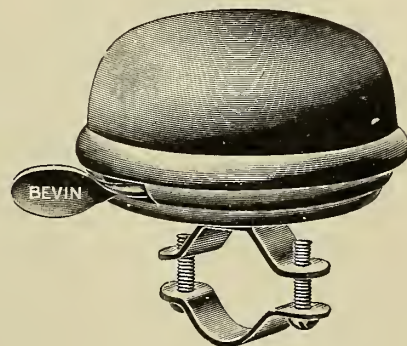
It is intended to apply this wonderful substance to various commercial uses as a substitute for rubber, it is said, nevertheless interest centres chiefly on its application to the pneumatic tire. To this end it is injected into the inner tube while in a fluid state, the tube and shoe being attached to a rim independent of the wheel. After a due period of seasoning the material hardens to the required degree and by means of special machinery designed in such a way that the tire will not be injured by its use, the rim and its attachment is forced onto the wheel. As the process of mounting the filled tires requires special machinery, it is intended to establish stations where the work can be done readily and without causing the purchaser serious delay. These will be located at convenient points in all large towns and cities.

By the use of the filling, it is claimed that full double mileage may be obtained from a set of tires with no other loss than that of the puncture difficulty. The weight of the substance is somewhat against it, it is admitted.

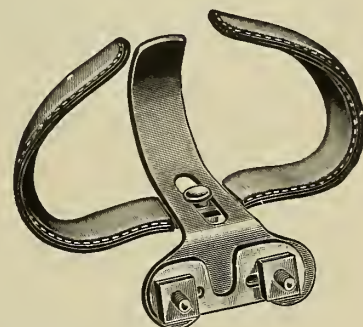
"The A B C of Electricity" will aid you in understanding many things about motors that may now seem hard of understanding. Price, 50 cents. The Bicycling World Co., 154 Nassau Street, New York City.

THE "Good Old Standbys"

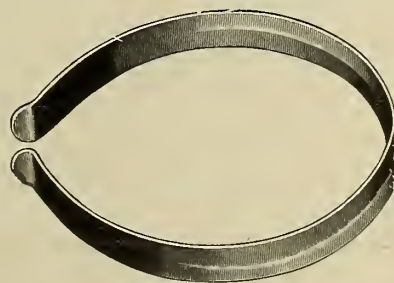
BEVIN Bells



BEVIN Toe Clips



BEVIN Trousler Guards



Prices as interesting as ever.

Bevin Bros. Mfg. Co.
EASTHAMPTON, CONN.

Continental Rubber Works Suit.

We desire to notify the trade that our suit against the Continental Rubber Works of Erie, Pa., under the Tillinghast Patents is still pending, and that purchasers and users are equally liable for infringement.

The following manufacturers are licensed to make and sell single tube tires under the Tillinghast Patents:

Hartford Rubber Works Co.

Diamond Rubber Co.

Fisk Rubber Co.

Pennsylvania Rubber Co.

Indiana Rubber &
Insulated Wire Co.

Goshen Rubber Works

Lake Shore Rubber Co.

B. F. Goodrich Co.

Goodyear Tire & Rubber Co.

Kokomo Rubber Co.

International Automobile &
Vehicle Tire Co.

Morgan & Wright.

Boston Woven Hose
& Rubber Co.

SINGLE TUBE AUTOMOBILE & BICYCLE TIRE CO.

THE BICYCLING WORLD and MOTORCYCLE REVIEW

FOUNDED
1877

U S Patent Office of Interior

Incorporating THE WHEEL, the AMERICAN CYCLIST and the MOTORCYCLE MAGAZINE.

Vol. LIV
No. 9

New York, N. Y., Saturday, November 24, 1906.

\$2.00 a Year
10 Cents a Copy

The Centre of Motocycle Interest
from December 1 to 8



Section G, Gallery
Grand Central Palace Show
New York



Indians
will be exhibited there
and there will be "lots doing" and aplenty to see

Meanwhile and thereafter _____

Hendee Manufacturing Company, - Springfield, Mass.

THE HARTFORD RUBBER WORKS CO.
HARTFORD, CONN. U.S.A.

Right Now

is the time to begin planning for the bigger-and-better trade of 1907. No doubt whatever about its being a year of activity and large opportunities. Within the past month, for example, we have booked (and already partially filled) the largest single bicycle tire order placed during the last seven years.

Cycling is coming into its own again. It is now a good, compact business—the life and support of hundreds of busy and profitable establishments. On the whole, automobiling brings more trade to the bicycle men than it takes away.

Wide Awake Bicycle Dealers

who cater to the highest class of trade need Hartford Tires to meet all the requirements of their most exacting (often their very best) customers. The line with a world-wide reputation is always the best line for the dealer; in the end it is the most profitable also, as experience has demonstrated time and again.

There is never any doubt as to the quality of the tires whose trademarks are the winged wheel and the upturned hands. The policy of this company is not one thing to-day and something else to-morrow. Our lines include everything the trade demands in the way of rubber tires.

Have you thought of the economy of buying a full line from one house—especially when that house has ten branches conveniently located throughout the United States? These branch houses save time and money to both of us; they are in charge of direct representatives of the Company, and our well-known headquarters policy covers them all.

The Hartford Rubber Works Co.
HARTFORD, CONN.

RANCHES: New York, Boston, Philadelphia, Buffalo, Chicago, Cleveland, Detroit, Denver, Los Angeles, San Francisco.

So far as concerns

Defender Special



New Oxford

it is not a case of "automobile tires first, bicycle tires a long way after." We do not produce automobile tires. That is

One
of the
Reasons
Why

our tires and inner tubes are so superior and give so much better service on bicycles than do other tires. We esteem the bicycle business as highly as other makers esteem the automobile industry and we manufacture accordingly.

Have we ever heard from you?

KOKOMO RUBBER COMPANY,

Kokomo, Ind.

NO BICYCLES

as good as

Pierce Bicycles

can be purchased
at the price of

Pierce Bicycles

There is about them that "air" and distinction of superiority that is undeniable and that serves to sell them without much argument—a fact which should appeal to enterprising dealers. The superiority which is so manifest is not a mere matter of good fortune. It is the result of painstaking effort and unswerving aim to produce the very best.

THE PIERCE CYCLE CO.

BUFFALO, N. Y.

BUILT AND TESTED IN THE MOUNTAINS

R MOTOR BICYCLE S
NO REGRETS

"SEE OUR SURPRISE AT THE NEW YORK SHOW, DECEMBER 1st"

READING STANDARD CYCLE MFG. CO., Reading, Pa.

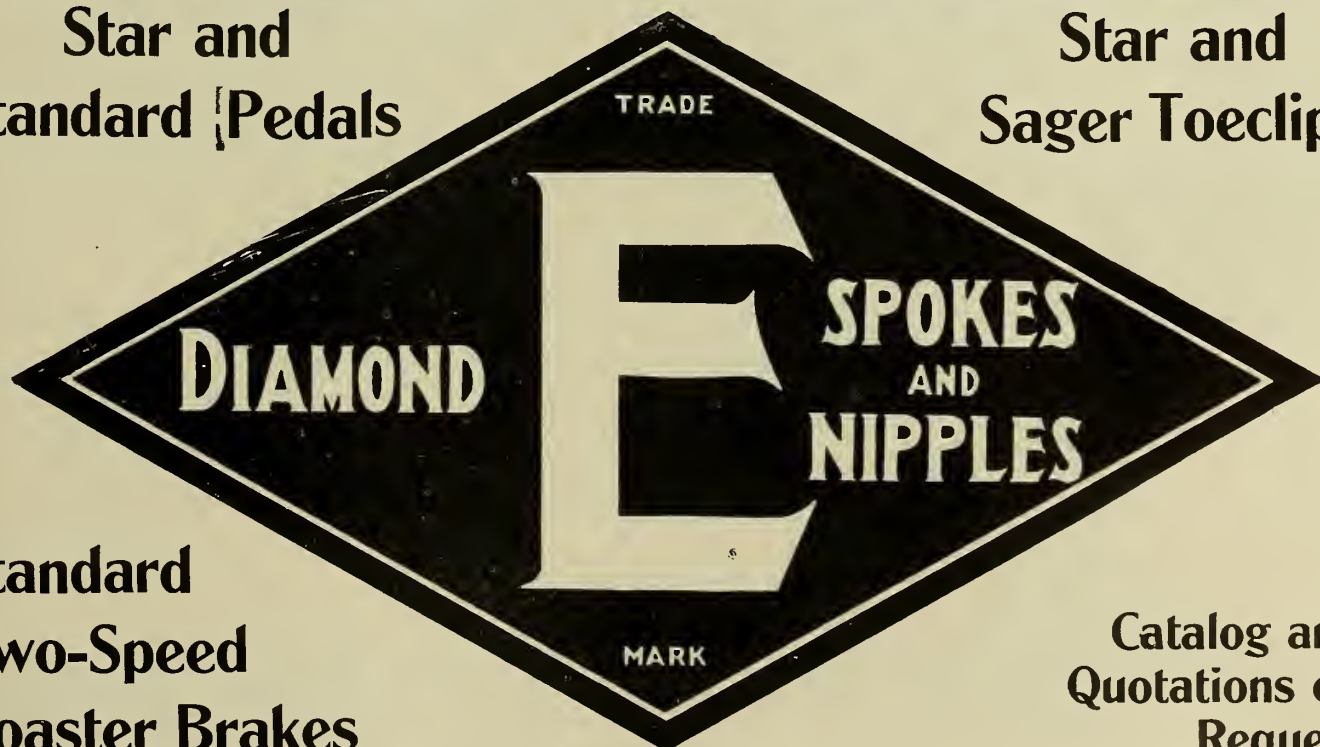
We Make the

**Reading
Standard
Bicycle**

The ONE Best line
for 1907

Star and
Standard Pedals

Star and
Sager Toeclips



Standard
Two-Speed
Coaster Brakes

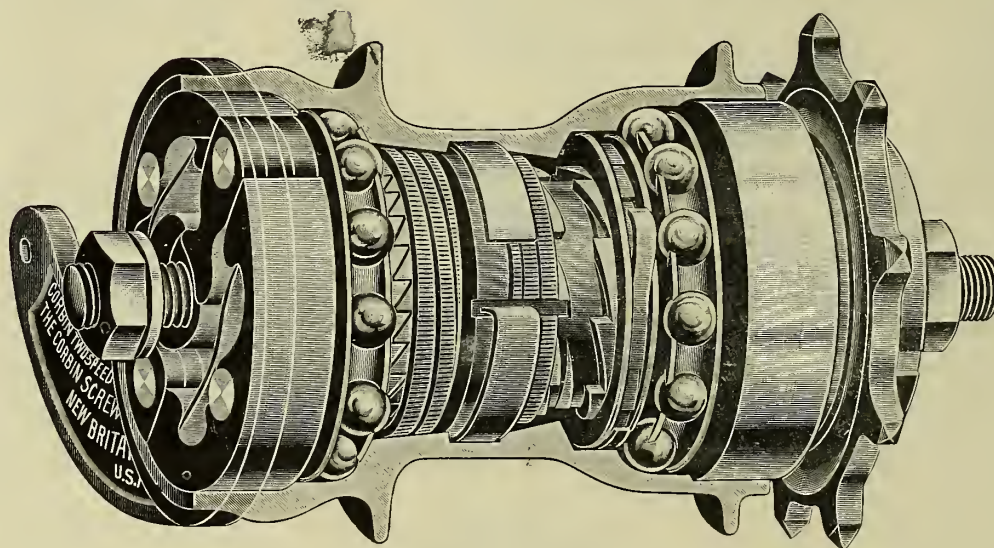
Catalog and
Quotations on
Request

THE STANDARD COMPANY
TORRINGTON, CONN.

CORBIN

Two-Speed

COASTER BRAKE



Now's the Time to get acquainted with it.

It means

MORE PLEASURE FOR RIDERS
MORE BUSINESS FOR DEALERS

It is of Corbin quality in every part. You know what
that means.

QUOTATIONS ON REQUEST.

CORBIN SCREW CORPORATION
NEW BRITAIN, CONN.



HOLIDAYS

Grasp the opportunity for adding to your profits.

Hundreds of Bicycles are used for Christmas presents, especially **Juvenile Bicycles**.

Order your stock quick and run no chance of losing sales,

Fay Juvenile Bicycles

Positively the Best

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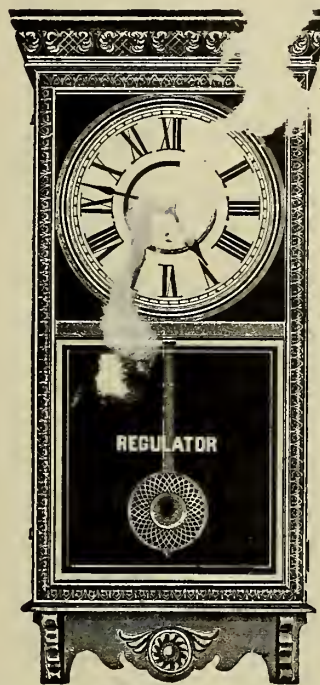
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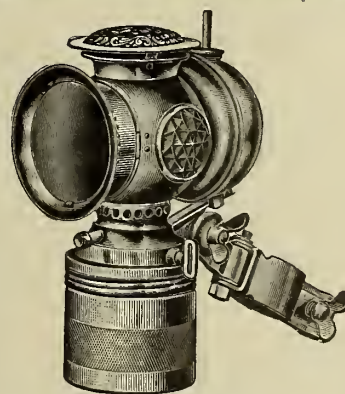


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10 cents per line; cash with order.

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AN INDIAN MOTORCYCLE, in first-class order, for \$100.00. Now is the time to look for a place to store your machine away for the winter in a reliable place. We have room for 8 more machines; dead storage, \$1.00 monthly. We have in stock new cylinders, pistons and all parts of 1905 and 1906 Indians for overhauling jobs. **THE TIGER CYCLE WORKS CO.**, 782 Eighth Ave., New York City, N. Y.

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PROMPT deliveries on 1906 Indian motorcycles. Second-hand Indians, \$115, \$125 and \$150. All parts for Thor motors carried in stock. Send for our catalogue of motorcycle supplies. **F. A. BAKER & CO.**, 1080-1082 Bedford ave., Brooklyn; 37 Warren st., New York.

ONE new Thor motor, $1\frac{3}{4}$ H. P., complete with carburetor, \$90; 1905 Indian motorcycle, been overhauled and re-enameled, extra heavy spokes, $2\frac{1}{4}$ G & J tires; good as new, \$160. Expert repairing. **PIEPER & CONNOR**, 1201-1203 Bedford ave., Brooklyn, N. Y.


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(Brought Out in 1896)

BEST ANTI-FRICTION
THE SARTUS BALL BEARING CO.
155 Spring Street, New York.

The Week's Patents.

835,564. Vaporizer or Carburetter. Chas. D. Shain, Rockaway Park, N. Y. Filed Dec. 26, 1905. Serial No. 293,426.

Claim.—1. In a vaporizer or carburetter, a shutter-throttle made of two portions of a hollow sphere; each of these portions turning in opposite directions on a common axis by means of gears, a crank, a lever, a tension-spring and stops arranged so that each portion may at times be moved separately, all substantially as set forth.

835,808. Tire. Henry T. Bragg, Yonkers, N. Y. Filed Jan. 16, 1906. Serial No. 296,260.

Claim.—1. A tire having a knitted fabric incorporated therein, said knitted fabric having knitted reinforced portions integral therewith along the sides of the tire.

Forsyth Specialties.



No. 16 Brake with Metal Sleeve.

Attached to wheel at handle-bar by clamp, and at fork crown by expansion plug pressed into crown-head. Spoon is connected with plug by taper bolt, and by turning up nut plug is expanded, forming secure fastening. We make spoons with or without rubbers to fit all styles of crown. Lots of these brakes used. Every dealer ought to carry them.

Forsyth Mfg. Co., - Buffalo, N. Y.

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GOODYEAR TIRE & RUBBER CO., Akron, O.



Dear Mr. Motorcyclist:

I will be at the Grand Central Palace Auto Show Dec. 1st to 8th. Come and see me and get better acquainted. I know you will like me because everybody who knows me does. Yours truly,

SPLITDORF COIL

CATALOGUE.

Thor Motor and Parts for Motorcycle and Hubs and Parts for Bicycle on application.

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AURORA, ILL.**

WHO would think of building Bicycles, Coaster Brakes, Lawn Mowers, Sewing Machines, and etc., etc., without using



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Retainers**

therein?

WHO, tell us?



The STAR BALL RETAINER CO.
Lancaster, Pa., U. S. A.
and Berlin, S. O. 36, Germany



**H. T. Hearsey
Vehicle Co.**

INDIANAPOLIS,
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HAVE BEEN RINGING SINCE 1776.

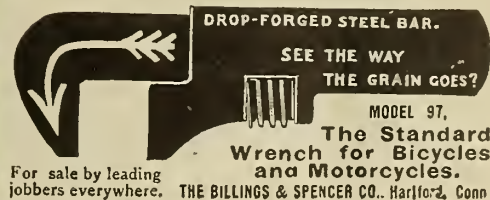
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Chicago Office, 1064 Monadnock Bldg.



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or intend to ride or sell
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"speaks a piece."

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interested in cycling who realizes the value of keeping informed
about all that concerns it this blank will be hint enough:

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Enclosed find \$2.00 for which enter my subscription to
THE BICYCLING WORLD for one year, commencing with
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FOUNDED 1870

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THE BICYCLING WORLD and MOTORCYCLE REVIEW

FOUNDED 1877

Volume LIV.

New York, U. S. A., Saturday, November 24, 1906.

No. 9

NEW TIRE FOR MOTORCYCLES

Goodyear Brings Out First of Mechanically-Fastened Type—Rim Provided With Removable Flange.

That with the influx of new motorcycles there should come a new tire also is almost a matter of course. While most of the new machines are yet to be uncovered, the new tire already has been exhibited to a number of interested persons. It is the product of the well known Goodyear Tire & Rubber Co., Akron, Ohio, and is the first of the so-called mechanically-fastened tires offered for motorcycle use, although that type has attained considerable vogue in the automobile industry; it does not depend on inflation to hold it in the rim.

In the case of the Goodyear, the rim is made with a removable flange, into which, when the tire is applied, a spring steel locking ring is fitted, the locking ring securely holding the flange and, of course, the tire, in place and without the aid of nuts or bolts of any kind. The tire is detached merely by inserting a finger under the taper and split end of the ring, when ring, flange and tire come off instantly; the replacement is as quick and as simple.

The new tire is almost ready to be presented to the motorcycle public and that it will command a lot of attention is beyond doubting.

Baker Gets Yale Territory.

F. A. Baker & Co., the well known New York dealers, gathered in one place this week—the distribution agency for the Yale-California bicycle in Greater New York and all of Long Island. They will carry a stock of machines and parts and appoint sub-agents in that territory, thereby saving the latter the cost of freightage or express from Toledo. Edward Buffum and F. C. Cornish came to New York to close the deal, which com-

pletes the Baker line for 1907 and gives the New York firm territory on a belt-driven motorcycle as well as a chain-driven one—the Indian—for which they already had obtained the Greater New York representation.

Britons, too, Bring Tire to Canada.

It transpires that at least one British rubber house was, like the American tire manufacturers, on the alert when the Canadian patent on the G & J tire expired. The concern in question, the Leyland Birmingham Rubber Co., which has an office in the Board of Trade building in Montreal, has lost no time in placing a G & J type of tire on the Dominion market.

Grady to Market Crouch Output.

J. W. Grady & Co., Worcester, Mass., have acquired the selling agency of the Crouch motor bicycle and will market the output during the 1907 season. In a quiet way, the Crouch Motor Co. made and dispose of about 100 machines this year and it was their behavior that attracted the keen-witted Grady.

Relay Incorporates with \$125,000.

The Relay Manufacturing Co. has been incorporated at Charlotte, N. C., with \$125,000 capital, to manufacture bicycles, parts and accessories. The company will begin business with \$4,000. The incorporators are G. V. Keller, M. F. Trotter and Morris E. Trotter, all of Charlotte.

Smith to Sell Reading Standards.

George C. Smith has been added to the traveling staff of the Reading Standard Cycle Mfg. Co. He is not new to the "game" having previously covered territory for the Pope Mfg. Co.

To Make Cement in Denver.

The Denver Bicycle Cement Co. has been incorporated in Denver, Col., with \$5,000 capital. Harry E. Gougar, George F. Fridwell and J. F. Jones are the incorporators.

WHEN PAST AND PRESENT MET

Neither Recognized the Other but the Meeting Recalled Trade History—"Past" Advises Simple Life.

During the meeting of the Cycle Manufacturers' Association in Chicago on Wednesday of last week, the elevator in the big Auditorium Annex, in which it was held, went up with regularity only to come down again as regularly. It was on one of its up trips that a small but interesting incident transpired of which but seven men were the witnesses—Harry Walburg, F. C. Finkensstaedt, Fred I. Johnson, E. S. Fretz, H. S. White, H. W. Porter and the Bicycling World representative.

As the door of the "lift" was about to close, a big page of cycling history pressed inside—a big, fine specimen of well matured manhood. He looked at none of those in the car and none of them looked at him. None knew him and he knew none of them, or rather, there was one exception—the Bicycling World man. He voiced a greeting to the big man, a greeting which the latter returned and added, "What's going on?"

"A meeting of the bicycle manufacturers," was the response. "Allow me to introduce you."

If the big man turned a hair it was not discernable. The introductions and some pleasant conversation followed.

The big man was A. G. Spalding—the same who, in 1898, engineered the American Bicycle Co.—the bicycle trust—to completion and who was its first president. At least four of those to whom he was introduced were bicycle manufacturers who had not been invited or who had declined to join the trust; and the trust, of course, expected to put them out of business, to say nothing of the Bicycling World itself. How the tables were turned and how Mr. Spalding stepped down and out and the trust

went to smash need not be recounted here. But the unexpected meeting of the Past and the Present of the cycle industry and their unacquaintance with the other was not without its touch of the dramatic.

Mr. Spalding has practically retired from business. He has not entirely divorced himself from his great sporting goods business but it is only the most important affairs with which he is now concerned. Generally he spends his time on his California estate and tries to forget the commercial life.

"Personally I think a man's life should be divided into three periods—the first, educational, to continue, say, until he is 21 to 25 years old," he said. "In that time he should absorb his education and become fitted for business and the world's strife. The second should be 25 years of the hardest kind of human effort—a plunge into the maelstrom of business and hours and hours of work every day, until he has achieved success in his chosen calling. No human being with ambition and plenty of red blood in his system need be afraid of hard work between the ages of 25 and 50 years.

"The third period is all that time from the fiftieth milestone to the call of the Grim Reaper. It is the evening dress and banquet period with many successful business men retired and still working in the harness, and should be spent in outdoor recreation, the pursuit of pleasure. A man who works hard twenty-five years should have this time for play. He should lead the simple life. He will be happier and healthier. I practice what I am now preaching, and never felt better in my life."

Features of the Motor Tandem.

The motor tandem which will form a striking feature of the Reading Standard line for 1907, and which will be the very first of its sort, will employ the new R-S mechanically-operated 3 horsepower motor and the carburetter, muffler, oiling device and other components that go to make up their Model A motor bicycle. The tandem will have a convertible front diamond, that is, the top tube will be removable permitting the frame to have a drop front for lady's use. It will be a double steerer, will have a wheel base of 74½ inches and will be listed at \$275.

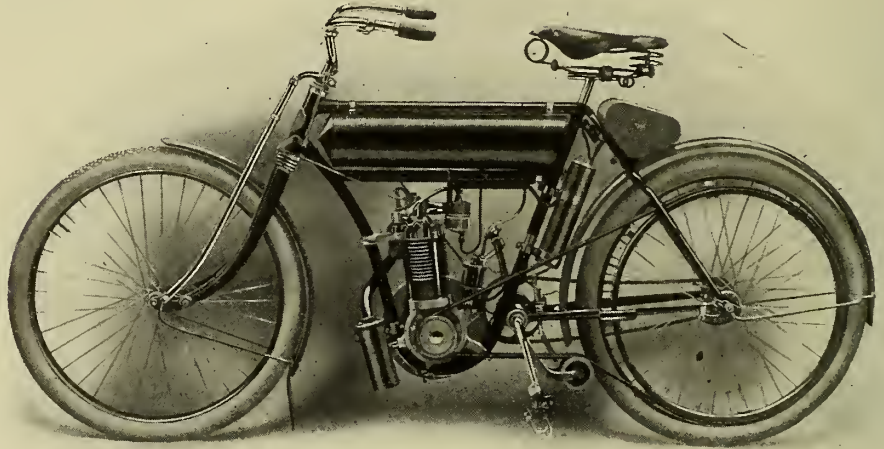
The Best Position for Lamps.

Lamps of all sorts burn best when in a nearly horizontal position, and hence the position of the lamp on its bracket is an important point with the rider who expects to get the best results. To be sure, it is an advantage frequently to direct the beam of light down upon the track close at hand. Yet the cost must be counted when this is done, and if possible, the lamp swung low on the machine in order to secure the desired result without inclining it to an extreme degree.

REFINEMENT OF THE YALE

Wherein a Good Motor Bicycle Has Been Made a Better One—Slight Advance in Price, also.

It is fair to say that since the Consolidated Mfg. Co., Toledo, Ohio, undertook the manufacture of the Yale-California motor bicycle there has not been a year when its prestige has not mounted higher. Its improvement has been steady and substantial and by this token the year 1907



should see it cut a very much wider swath than ever before. While radical alterations were not possible, the refinements effected make for general all-around betterment and add value that is undoubted.

Although the proportions, 2½ by 3 inches, remain the same and it will continue to be rated at 2 horsepower, there is more of that power in the motor than previously was the case, the process of refinement having brought with it greater efficiency, a wonderful one-piece drop-forged crankshaft which includes the counter-balance weights is not the least of the evidence to that end. The same type of carburetter, but one with a larger float chamber, will be employed; the grip control operating the throttle only will be retained but the means of control have been improved, a cam movement having been adopted which firmly holds the throttle in the exact position in which it is placed; needless to add, there has been also retained the form of throttle in which a port is opened when compression is relieved—a valuable feature which permits cold air to enter and cool the cylinder and working parts.

The tank has been made round instead of square and its capacity increased; it will now hold 5½ quarts of gasoline and 1 quart, 1 pint of lubricating oil; the drip feed has been retained. The muffler is now really a silencer, disc strainers have been substituted for the perforated tubes previously used.

The spring idler has been removed from the engine and is now attached to the rear

frame. The idler rod has been made flat instead of round and has teeth instead of notches; a lever fitting into the teeth holds the idler securely and prevents it from slipping out of the segment into which it is placed, thus holding the belt to its work.

The rear frame construction has been slightly altered but it is the new cushioned front fork that is the 1907 feature of the bicycle proper. It comprises a truss formed of two tubes in each of which is enclosed a long—12-inch—helical spring which afford an unusual range of flexibility; in the upper end of each tube is a recoil spring

and a screw, turning which permits the fork to be adjusted to suit the individual wish or weight; the cushioned truss is hinged to the main fork by a supplementary fork end. The Yale people are immensely enthusiastic over the operation of this new cushion and maintain that it has solved the vibration problem and rendered motorcycle comfort possible on rough roads as well as on smooth ones.

For 1907, the Yale-California will be fitted with 2¼ instead of 2-inch tires and its price will be \$185 instead of \$175, as heretofore. The work on it already is so far advanced that it is expected that deliveries will begin Dec. 15th.

Where Business is Good.

"Business is very good and prospects are bright," says A. B. Coffman, the Yale traveler, writing from Terre Haute, Ind. "We have had an exceptionally fine Fall and wheels are being sold right along by all the dealers I have visited. This particular town (Terre Haute) is a good bicycle town and the dealers work together in harmony better than in any other place I have ever encountered."

Will Have Cushion Frame Model, too.

To their Yale line for 1907, the Consolidated Mfg. Co. will add a cushion frame model, employing the Sager helical spring construction in the forks but with two plates of saw steel forming the cushion at the crank hanger; the new model will be priced \$50.

CONCERNING PISTON RINGS

How Readily to Remove and Refit Them and How They are Made—Their Relation to Compression.

The limit of elasticity of cast-iron being necessarily small, care should be exercised when removing or replacing a piston ring. For that reason it is preferable not to tamper with a set unless it is absolutely necessary, as evidenced by undue heating at the base chamber of the engine, discharge through the air-release or "breather" of the crankcase, or in a case of fracture. The latter is usually discernable by the clicking noise when turning the motor over slowly, the noise evidencing itself at each reversal of the piston's movement. To remove a ring or set of rings if it is desired to retain them, first cut three thin strips of medium gauge tin plate, say $\frac{3}{8}$ -inch wide, and in length sufficient to pass beyond the lowest groove in the piston. Work one past the slot or join of the ring and sufficient to ensure so much of the ring being held free of the groove. Next insert a second in the same way, but at the opposite end of the ring, and gradually work same around as far as possible, taking care to stop when the ring is seen to be unduly distended at any one point. A third may then be inserted just at the join. Proceed then to work upwards the two ends of the ring, i. e., clear of the groove, and gradually do the same in respect to its entire circumference.

If it be a lower ring or the middle one that is being removed, it may be necessary to occasionally push or compress the others over which the ring has to be passed. A narrow pocket-knife blade will facilitate the operation which calls only for care. Care should be taken not to strain the ring by tilting it edgewise when removing, and will be effected by noting that the pressure when prizing off is evenly exerted from point of the ring's entire circumference. Rings that are supplied as replacements by the manufacturers may be taken as being already a tested fit for the cylinder's bore; but rings that have been bought or taken from a maker's stock require to be tested. To do so it is only necessary to pass the ring up the cylinder bore, taking care that it goes really into the working track—for it is the custom to bell-mouth slightly the end of the bore. The ring should be an exact fit at the join; failure to make it so will be a contributory factor towards compression leakage. There should be no clearance whatever at the join when the ring is in place; the theory that it is necessary or desirable to allow for expansion is erroneous; such expansion on an already neat fitting ring would the better ensure tightness against compression. Before replacing a set of rings the pins tapped into the bed of the

piston grooves and which serve to prevent the rings from working around so that their openings register, should be tested for tightness.

But there is a difference in the making of a high grade ring and one of the customary standard sort. Taking the latter plan first, the custom is to first bore them out from a cylindrical casting, next to turn them externally to a diameter slightly larger than the cylinder bore, and finally part them with a narrow parting tool. Where the ring is fashioned eccentrically it is necessary to set the stock casting to the required degree of eccentricity, so as to get a ring of equal thickness. The result is that according to the absence of spring in the lathe headstock and the carriage and slide rest, as well as the skill of the turner, so the rings are more or less externally passably concentric. As to the methods of cutting the ring two are extant. Of these the better, but more expensive one, is to cut the ends in such a fashion that when pressed together they overlap or "scarf," as it is termed, the joint somewhat resembling the letter Z if placed horizontally. If carefully fitted, this form of join is practically gas-tight, but in the case of small rings it is difficult to remove them subsequently without breaking the slotted ends. The more usual method is to merely cut the rings slantwise, which should be done at an angle of from 45 to 60 degrees.

It is thought by some designers that an eccentrically-bored ring cannot, by reason of the fact, be a gas-tight fit, alleging that the gas passes at the back of the ring into the cavity resulting from the eccentric wall of the ring and the concentric groove which carries it. The parallel ring has obviously something to commend it, but it is necessary to give it the needed elasticity of its concentric form is to be retained. The grooves in the piston should not be of a depth greater than the thickness of the rings, and the rings should be edgewise a close fit, but not a binding fit, otherwise their elasticity will be lessened. It is not advisable to fit a wide ring or to groove the piston wider than the makers sent it out as nothing is gained by fitting a wide ring; on the contrary the friction element is increased and the oil film on the cylinder wall lessened, so that the danger of seizing is more present, besides the loss of power engendered by the increased friction referred to. A good combination in respect of the composition of the metal used for piston rings is: combined carbon 0.5, silicon 2, sulphur 0.1, manganese 0.5, and phosphorous 0.8, the result being an elastic close-grained casting.

Next in frequency of attention after the grinding of valves the examination and often removal of piston rings is the favorite task of the man in search of the cause of a diminished compression. Unless the rings are pinned against turning, such practice invariably means that their relative positions either as regards the cylinder or

one another become disturbed. Where the ring has been made on the mechanically-correct method mentioned, the effect is not an ill one, but in the case of an ordinarily made and more or less oval one, it may happen that the effect will be to even lessen the compression. This, in fact, is what usually follows on the fitting of a new set of rings of the latter sort. The engine has to be run for some time before they are said to have "bedded" to their places. To a varying degree this is only tantamount with the cylinder being itself oval; therefore the less such a set of rings is disturbed the better. The substituting of a degree thicker grade of oil will often effect a cure on the above score, and the same applies to the value of an occasional washing out with kerosene. It has been noticed that the tendency, of course, being for the two to position in the groove may be often taken as an index to itself being oval, or more often, in the case of a recently-fitted one, to the oval part of the ring being in close proximity to the same in the cylinder, the register. This was established in a test by marking the position of a ring before closing down the cylinder. On a latter examination the ring was found to have shifted to its former place. The cylinder was then calibrated and found to be oval. Where new rings have been fitted the engine should be given a long running test using a thick-bodied oil before taking the car out. Attention to this detail makes all the difference between satisfaction or the reverse.

Bicycle Power for Dynamos.

Those cyclists who are interested in experimental mechanics, electricity—or the like—things that other people have a habit of dubbing "pottering around," will find that their mounts may be impressed as an aid to their hobby. In the case of electricity, for instance, the small dynamos that are designed to produce sufficient current to carry out most of the commoner experiments are being made to run by hand power. But turning the crank and multiplying gear with which they are ordinarily equipped is usually a tedious job and the same end may be attained in far more effective fashion by the use of the bicycle. The rear tire should be removed as a preliminary and a piece of round belting passed around it and the pulley of the dynamo. This improvised power plant may be operated either by bracing the bicycle on its saddle and handle bars and using one of the pedals as a crank handle or it may be jacked off the floor and suitably braced in place so as to be used in the ordinary manner. In either case it will be found to supply a means of accomplishing the end sought that is far superior to any other at the command of the average amateur. In fact, bicycles and tandems have frequently been impressed into service to run machines of much larger sizes such as the dynamos used for charging the storage batteries in wireless telegraph stations, etc.

The Dealers Who Pinned their Faith to National Bicycles

in 1906

were the men who did business on

"THE SUNNY SIDE OF EASY STREET"

They had the bicycles with which to quickly answer the "Show me" demand—the bicycles that are not like the common run of bicycles—the bicycles that have individuality and talking points (which are merit points also) and which when sold stay sold and sell others.

**If Your Business Needs a Tonic, Why
Not Try the National Agency for 1907?**

NATIONAL CYCLE MANUFACTURING COMPANY
BAY CITY, MICH., U. S. A.

**Comfort
Resiliency**

and 45 per cent. Saving in Tire Maintenance are the essentials
of the ever reliable

Fisk Bicycle or Motorcycle Tires

Like all Fisk products, they have a Quality and a Construction that is exclusive—real merit—through and through—that makes their distinct superiority apparent.

WILL OUT-LAST TWO OR THREE OF OTHER MAKES

THE FISK RUBBER CO., Chicopee Falls, Mass.

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FOUNDED 1877

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Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should
Address us at P. O. Box 649.

NEW YORK, NOVEMBER 24, 1906.

For the Holiday Trade.

Now is the time for those dealers who are planning to make an effort to capture the holiday trade to bestir themselves. For the season is at hand and there is much to be done in the way of preparation. Not simply are the new goods to be stocked, selections made and orders filled, but once the stocking has been done, the most important part of the work lies in informing the public of the fact—advertising, in other words. Just as at all other seasons, the mere fact of possession of the wares and offering them for sale is not enough, the fact must be known now if results in profitable quantity are to be expected.

As to the precise nature of the stocks most saleable at this time of the year, while novelties are apt to attract attention, and hence to serve a useful purpose in their way, the staple line which supports the business throughout the year should be maintained in its full prominence. Bicycles always are acceptable as presents, the juveniles being essentially gift machines. The little folks, chiefly for whom Christmas exists, are always eager for them, and as even the so-called summer toys have a certain all the year 'round utility, their value

in the stock of the bicycle dealer is by no means to be minimized. They are made in almost as many styles as the regular mounts, may be had in sizes to suit all ages, and from this fact alone, the importance of carrying a full line of them is apparent. The wise dealer will also put in a few velocipedes and other pedal propelled toys, as they come under the same general class, and are likely to be a profitable venture.

Accessories also form a valuable medium of holiday trade especially when mounted in an attractive manner, and besides being requisite at all times, just now by their ornamental nature serve at once in a decorative way toward brightening up the display, and a help to catch the lighter trade which goes to make up a prosperous business. Whatever it may be, so long as an article works into the show window or the counter setting, adds a bit of color here or a fantastic or pleasing outline there, it is serving a useful purpose even though the margin of profit which it allows may be comparatively small.

A great deal depends on the manner in which the goods are presented to the customer, the method of arrangement, the facility with which they may be got at for inspection, the ease with which they may be handled. Now if ever, should the show windows be cleaned up and made bright and attractive. Good cheer is the keynote of the season, therefore it should be suggested in every corner of the store, and particularly in that portion of it which is meant to catch the passing trade. It is by the shop windows that the world learns each year of the approach of the holidays. The window displays are first to suggest not simply the approach of the Christmas festivities, but also the idea of the Christmas gift. The natural consequence of the idea is to put it into execution. And the chances are that the effect of the suggestion will be felt immediately by the owner of the shop whose window makes the most marked impression. This applies as well in the country as in the city, in the village as well as in the town.

Quite as much tact is required in the holiday advertising as in the matter of selection of stock and window display. The same old story of the value of the wares will not do as good work as will a special application of the idea of the season. First and foremost, the public is to know that an effort is being made to satisfy the demands for special goods to meet a special demand.

The staples of life are apt to be given the go-by just now unless they are held up to view in a wonderfully clever manner. Hence the usefulness of the bicycle, its appropriateness and pleasurable nature must be emphasized with due regard to the nature of the trade which is sought after. The public is out to spend money, and, generally speaking, it spends it not too wisely, as is shown by the enormous trade done by the street fakers in the cities. All that is required to carry the same sort of boom into every line is the same sort of "push" which the fakers use in their vocation. Get something worth selling, put it where it can be seen and then shout—the business is as sure to come as dear old Santa Claus himself.

Why Changes are Desirable.

One of these old subjects which is forever recurring, has recently been recalled to life once more by the plaint of one of the largest handlers of bicycles. "What we want," he said, "is something new—change of some sort, even if it is nothing more than a new sprocket, it serves a purpose, it gives us something to talk about." And though there may be no apparent need of new designs in the machines of the present day, certainly not in the light of the performances which are being made every season as compared with those of only a few years ago, the world's clamor for the new, no matter what may be its intrinsic value, is one not readily stilled, and yet, one readily quieted for a time by simple means. For variety is as essential a condiment in the life of the trade as it is in the mundane existence of every day life. It helps make sales. It gives the dealer the "something to talk about" that is so vitally necessary.

The constant shifting about of designs which obtained a few years ago was particularly distasteful to the makers. It involved a deal of expense, needless in many cases, the complete alteration of patterns and stocks of material, and frequently enough, the absolute shelving of an otherwise worthy type, now rendered obsolete. Yet that very unrest which was the ban of the manufacturing end of the industry, helped along amazingly the selling business. The public, pampered in its demands for the new, came up annually for its little pill of novelty, and swallowed it, often greatly to its own cost, yet cheerfully because it was new. The same principle applies today even though the actual need of betterments

may be hard to find, yet there are many different ways of accomplishing the same thing, equivalent in value as far as the ultimate result is concerned, yet permitting a distinguishment between what is new and what is not, that cannot fail to be of great intrinsic value to the market.

"Even if it is nothing more than a new sprocket"—the presence of the adjective carries weight, and the goods are that much easier to dispose of. What dealer has not proved the truth of this over and over again in his experience? In the days of the great annual "improvements" which took such startling shape sometimes, who has not pointed out some new feature with the remark, "but I don't think it is really any improvement over last year" and still sold the goods? It is inevitable. What is new must be had at any cost. The world thirsts to be up-to-date, and whatever may be the price, it is paid cheerfully in return for the assurance that the novelty really exists. Engineering theory may not demand any marked alteration in the construction of the bicycle from year to year, but the public does. Yet since it is the public which is to be pleased rather than the profession anyhow, why not let 'em have it? These little changes cannot cost much, can be altered out of existence at the end of twelve months, and while they last, go a long way toward seasoning the manna of the dealer's existence to say nothing of giving the blessed public its pepper and salt. It would seem well worth the effort and the cost which speedily will be returned with interest in the form of increased sales.

It costs so much less than a cent a mile to operate a motorcycle that no one bothers to figure on working expenses as a really important item in connection with the use of the thing. It costs so much more than a cent a mile to operate a horse and wagon that the figure is neglected ordinarily. Yet while the horse eats more on Sunday than on any other day of the week, the motorcycle eats less unless it is on the road, and the more it is used the better service it renders. Why more of the merchants in small wares and general carriers of light stuffs fail to appreciate the continual waste of their stable, why they do not put in motor driven machines—tricar of limitless ability, is one of the mysteries that point directly to the great interrogation of life.

Century Run Full of Happenings.

After two postponements, the New York Motorcycle Club's open century run from New York to Bedford, N. Y., and return, occurred on Sunday last, 18th inst. It proved a run to be remembered. Two of the checkers were arrested for scorching before leaving Broadway; Capt. Bendix "begged off"; the other paid \$3 into the city treasury. Outside of the city snow had remained on the ground and the thawing temperature converted it into rivulets, which contributed mud shower baths for all; some parts of the road had been "worked" and the water turned the mud into deep slime, which contributed sideslips without number and accounted for a number of bent cranks and broken pedals. On the homeward route, a rural sheriff had laid a "trap" through which the leading riders dashed to the vexation of those who followed; the latter were stopped but were let off with a warning. Then a light rain turned to a heavy one and completed the discomfort of the day. Those who finished after dark had a delightful time of it!

Of 25 starters, 15 finished within the limits of 6-8 hours, as follows: W. F. Mann, M. E. Toepel, Herr J. F. McLaughlin, C. H. Garfield, A. Kreuder, A. O. Viereck, E. L. Ovington, R. R. Starkweather, W. H. Saltzseider, F. J. Gilmore, L. H. Guberman, Herman Hare, H. G. Starkweather, H. E. Kreuder, J. P. Thornley.

Among those who did not finish were "Hard Luck" Horenburger (Marsh), who possibly has had more breakages than any other motorcyclist in the United States; he has broken about everything except his own neck and three times has come near to breaking that; it was his front fork that collapsed this time, however. Roland Douglas was also among the missing; he had been postponing the purchase of a new tire and on the way home the badly worn old one finally ripped out a yard or two, compelling him to invest in a railroad ticket; no excess was charged for the mud he carried. G. Jenkins, the Marsh man, piloted the new Marsh tricar on its debut, but it "died" early—about 30 miles out.

The World's Fastest Track.

Undoubtedly the fastest track in the world to-day is the new track at Munich, Bavaria, with the exception of Madrid, the highest city in Europe. It was here that Paul Guignard, who will shortly come to America, made his record breaking ride of 59 miles 30½ yards in one hour, and where several other notable performances have been recorded this year. The Munich track measures 666 metres (728.3 yards) a little more than two laps to the mile. The Munich track has been built especially to cater to those who like to watch men following gigantic pacing locomotives at express train speed and it serves the purpose well. Instead of putting in long stretches as at the Parc des Princes track at Paris,

the German track is built almost round, so that there is no plunging into the banking from a long level straight. The track was built to hold a speed of more than sixty miles an hour so it is quite likely that the present generation of cyclists will live to see sixty miles done in the hour.

Only One Thanksgiving Day Race.

The only race to be held in this section on Thanksgiving Day, Thursday next, is the thirty mile road race from Bedford Rest to Valley Stream, L. I., and return, which is being promoted by the Brower Wheelmen. The club has received a long list of entries and the fact that Cameron, Sherwood, Weintz, Mock, the Eifers, Fisher, Wilcox, Raleigh, MacDonald and George Wiley, of Syracuse, are entered practically guarantees that the race will be exciting. MacDonald and Wiley will ride their last road race as amateurs, both being entered for the six-day race. The little Syracuse messenger boy signed up this week and will be teamed with J. Frank Galvin, the fastest rider in New Milford, Conn., there being no other riders there.

Six-Day Foreigners En Route.

The foreign riders who will compete in the six-day race sailed on La Lorraine from Havre to-day, and should nothing prevent, will reach New York City next Saturday. The aggregation consists of Petit-Breton and Carlo Vanoni, Emil and Leon Georget, Walter Rutt, who will ride as Floyd McFarland's team mate. "Bobby" Walthour will sail with the foreigners. Stol is expected to-day on the Provence and the Salt Lake bunch, consisting of Hardy Downing, Norman Hopper, W. E. Samuelson, Cyrus Hollister and McFarland, will arrive Sunday or Monday of next week. They all will put in a week of training at the Vailsburg board track. Dave Coburn has again been selected to take care of the foreigners.

Jockey Out of His Element.

O'Connor, an American jockey, has been indulging a fancy to pace following as a diversion, and recently, when located at Berlin, challenged no less a personage than Thaddeus Robl, stipulating that the German should not use wind-shields although he, O'Connor, should have the biggest he could find. If there is one rider in the world who knows how to secure protection without the aid of shields it is Robl, and, as a result, there was only one man when it came to racing and his name was not O'Connor. Robl covered 50 kilometres in 34 minutes 12 seconds, not a great many more than the record. The jockey-cyclist quit at 30 kilometres.

"The A B C of Electricity" will aid you in understanding many things about motors that may now seem hard of understanding. Price, 50 cents. The Bicycling World Co., 154 Nassau Street, New York City. ***

DARRAGON SEES WALTHOUR'S HEELS

American Shows a Flash of True Form—
Defeats the French Crack and Gets
Close to Records.

"Bobby" Walthour won his only notable race of the season at the Velodrome d'Hiver in Paris, just a week before he was scheduled to leave the country. It happened on Nov. 12th, when he met and defeated Darragon, the world's champion, and Nat Butler, in a 60 kilometre paced race, without windshields. The race was one of the most exciting witnessed on the winter track for some time and the American got quite an ovation although he did beat France's pride and champion, and ride a "tour de honneur."

At the start Darragon got away in the lead followed by Butler, and lastly Walthour. The American got into his stride quickly and took the lead after the first few laps. At 10 kilometres he led Darragon and both had lapped Butler four times. Time, 7:56½. In the next ten kilometres Walthour had increased his lead over the Frenchman another 100 yards and had lapped Butler thirteen times. The time at 20 kilometres was 15:24. Walthour continued to ride strong and at the ending of 30 kilometres, ridden in 22:57½, he had increased his lead over the Frenchman to a half lap and over Butler to 15 laps.

From then on to the finish the race was nip and tuck between Walthour and Darragon, the American maintaining his lead of a half lap to the finish. The time for 40 kilometres was 30:36½ and for 50 kilometres, 38:16½. The total time was 45:55½. At the end of 60 kilometres Butler had lost 21 laps.

At the same meet Walter Rutt, the German champion who is mated with McFarland for the six-day race, finished second to Friol in a sprint race and beat Poulain, last year's champion of the world.

Outsiders in Front, Anyway.

Although the five mile road race held by the Century Road Club Association was doubtless intended as a little family party it did not develop into exactly that despite the fact that the Eiflers and Duester got first, second and third time prizes. Two outsiders, Reese Hughes and William Voehringer, of the Edgecombe Wheelmen, finished first and second, the former winning the race by eight seconds. His time was 13:20.

The race had been advertised as a ten mile affair but on account of the threatening weather the committee halved the distance and said that entries for the ten mile race would stand. That it was a "family party" for the benefit of the Eiflers and their helpers was brought out when the committee refused to allow Louis J.

Weintz, the champion of the Cork Pullers, to ride. Weintz had sent in his entry for the ten mile race and when he asked for his number it was refused on the ground that he had not entered. After the secretary discovered that Weintz had entered some time previous, this crack rider was told that he could not ride because this was "a different race."

The road was in fair condition and some very fast time was made. Frank Eifler, of course, beat his brother for first time prize and the time was announced as 11:44½, which, if correct, is a record for the Merrick road course. Ernest G. Grupe, while crossing the tape at the finish, was thrown heavily, by his rear wheel breaking. He was shaken up badly and received several contusions about the face. The summary:

Pos.	Rider.	Club.	Hdcp.	Time.
			M. S.	M. S.
1.	R. Hughes,	Edgecombe...	2:00	13:20
2.	W. Voehringer,	Edgecombe	2:00	13:28
3.	C. Voelkerf,	C. R. C. A....	2:00	13:30
4.	I. Lewin,	C. R. C. A....	2:00	13:34
5.	A. Albert,	C. R. C. A....	1:30	13:04½
6.	H. Hinck,	C. R. C. A....	1:00	13:04½
7.	W. Coreno,	C. R. C. A....	1:30	13:04½
8.	E. Olufs,	C. R. C. A....	1:00	12:34½
9.	C. Martin,	Imperial....	1:00	12:43
10.	E. G. Grupe,	Parkway...	1:00	12:43½
11.	C. W. Eifler,	C. R. C. A....	sch	11:44½
12.	C. Nerent,	C. R. C. A....	0:30	12:14½
13.	J. M. Eifler,	C. R. C. A....	sch	11:44½
14.	Peter Baum,	Tiger.....	0:30	12:15
15.	C. M. Schlosser,	Brower..	0:30	12:15½
16.	G. Duester,	C. R. C. A....	sch	11:47
17.	F. C. Graf,	C. R. C. A....	sch	11:47½

"Antique Race" at Hicksville.

If any old "boneshakers" or "ordinaries" lie unforgotten in cellars or attics the Hicksville (L. I.) Athletic Club would like to secure their use on Thanksgiving afternoon when it proposes to run an "antique" race in conjunction with its holiday athletic meet. An event of this character ought to provide a great deal of amusement for both the participants and the spectators. In addition there will be a half-hour bicycle team race and a boys' "pushmobile" race.

For Relief in Pennsylvania.

The Federation of American Motorcyclists has commenced work on its campaign to obtain relief from the oppressive burdens of the Pennsylvania law, which never was designed to apply to motorcycles despite the ruling of the State Attorney General to that effect. Among other things, the law imposes an annual fee of \$3 on residents and non-residents alike and requires the display of big, heavy, cast-iron tags front and rear.

Nat Butler Regains His Stride.

Nat Butler won the 50 kilometre race at the Velodrome d'Hiver, Paris, on Nov. 1st, defeating Bruni by only 16 yards and Rugere by 14 laps. The race was well contested throughout and Butler won the plaudits of the populace by his brilliant ride. Time, 44:11½.

AMATEURS TO HAVE AN INNING

Will Pedal During Six-Day Grind but Not
on the Track—Three Championships
Carded for Them.

Although, naturally enough, the professionals will bask in the limelight at the Madison Square Garden ampitheatre during practically all the week of December 10th to 15th, the occasion of the fourteenth annual six-day bicycle race, the amateurs also will be given an opportunity each evening to have at least a few rays of the light turned in their direction and the stage of their operations will be, correctly stated, in the centre of the arena. There, during the week, on a platform erected especially for the purpose, a series of home trainer races, for the club and individual championship of America, will be held, and as this style of indoor sport has become very popular within the last two years, the attraction will undoubtedly prove the best of the side shows.

The idea of providing a means for amateur competition during the big week without interfering with the monotonous grind on the track first suggested itself to Victor J. Lind, the energetic chairman of the Century Road Club of America's racing committee and he took up the matter with the promoter of the six-day race with quick success. The result is that the Americas will act as patrons of the home trainer races. Entry blanks already are in circulation and catalogue three events, possibly the most important being the inter-club championship at two miles. Any club will be allowed to nominate three amateur riders to ride for the silver trophies that are being provided by the manager, and no entry fee will be charged in either this event or in the one mile individual championship, in which special prizes will be awarded. The other event is open to all Century Road Club of America members and is for the championship of that organization. The races will be run in trial, semi-final and final heats, beginning on Monday night and continuing every night until Friday, when the final heats will be decided. As there is plenty of club rivalry between the metropolitan organizations this feature should prove highly exciting. All entries close with V. J. Lind, 194 Schermerhorn street, Brooklyn, before Dec. 3rd.

What Religion Will Do.

T. W. Pennington and Joseph Thole reached LaCrosse, Wis., last week en route to Benton Harbor, Mich., from Seattle, Wash., about 2,500 miles. They are making the trip on bicycles and carry camping kits containing tents, bedding, clothing and cooking utensils. Both are well advanced in years and intend joining a religious sect called the Benjamins or the Sons of Israel.

TOM COOPER'S TRAGIC END

Former Champion Meets Death in Midnight Automobile Accident—His Proud Career as a Cyclist.

As all the world now knows, at least that part of it interested in cycle and automobile racing and which reads the daily papers, Tom Cooper, one of the fastest men that ever straddled a bicycle, is no more. He was instantly killed in a tragic automobile accident that occurred shortly after midnight on Monday last, 19th inst., in Central Park, New York City.

Tom Cooper was born in Detroit, Mich., about 36 years ago. He took up bicycle racing in 1893, and was fairly successful as an amateur in events held in that locality. On May 30th, the following year, he made his first attempt at track racing as a Class A man or, as was then called, a "speckled" amateur. Cooper surprised the Detroit talent by beating Conn Baker in the half-mile scratch, getting first in the one-half and two mile handicaps from scratch and first in the 2:20 class. Cooper's next big win was at Port Huron one month later when he corralled five firsts in the "A" class, including three State championships. He followed these up with a continued string of victories and rode his first race as an out and out professional at the week meet held in Chicago in August, when he beat a large field of the crack racing men in a quarter-mile open. A few days later Cooper met E. C. Bald, one of the fastest men of that time in a quarter-mile race at Ripon, Wis., and trounced the crack. He did not go to the National L. A. W. meet held in Denver that year when Ziegler, Bald and Titus accounted for the championships. It was in 1894 that Cooper first met Bald and he used to delight in telling of that first meeting. It occurred at Battle Creek, the breakfast-food town, in July. Of that first meeting Cooper said:

"I was pot hunting and did not expect any good men would be there. The night before the races Bald and a lot of other flyers telegraphed their entries in. It was the first time I had ever met the cracks and, of course, they had never heard of me. Well, I won the half-mile open from the best of them. I did it by starting to sprint from the last quarter when no one was expecting it. I got by everyone and on entering the stretch I was leading Bald by eight open lengths. Bald came on like a hurricane but I made good and beat him to the tape by three lengths. I met Bald several months later and beat him in three out of four races, and from that time on he was my sworn enemy." The animosity was not sustained, however, for later Cooper and Bald became good friends and but recently drove together in the race scene in the "Vanderbilt Cup."

Cooper and Bald were the stars of the circuit in 1895 and although the Detroiters did not enter the championships at Asbury Park, where Bald got two titles, he finished second for championship honors in the total circuit score, being beaten for first place by Bald, the Buffalo crack. season of 1906 by trouncing Bald in every event at Fredonia, N. Y., following this up with another victory at Rochester. Bald did not compete in the Peoria meet that year and Cooper demonstrated his superiority over the other circuit chasers by walking away with every important race. During the first half of that year



TOM COOPER

Cooper had won 16 of the 19 open races in which he started, had beaten Bald five times out of six, Sanger seven times out of eight and Gardiner seven times out of seven. The national meet was held at Louisville, Ky., and Cooper accounted for four championship events, but was disqualified in the five mile for foul riding. Tom Butler got the other two. If Cooper had entered as many races that year as his adversary, Bald, it is not doubted but that he would have won the circuit championship; as it was, he tied Bald with 65 points, Cooper having started in 35 races and Bald in 43. An attempt was made to settle the question of supremacy by a match race but this fell through.

Bald won the championship in 1897 and in the following year the circuit was never completed although Bald was leading in points when the Southern races came to an untimely end, through trouble with the Georgia Central railroad.

Cooper won the National championship in 1899 after an unbroken string of victories, but in the following year he met

his master in the person of black "Major" Taylor, who annexed the honors that year. Cooper rode for one year longer with varying success. He quit the game and then lived on his income for two years before entering the automobile game.

Cooper was unlike the great majority of bicycle riders of his time in that he knew how to take care of his money. He never spent any of his winnings but invested profitably in a telephone company then forming in Detroit and later in real estate. His investments were well made and, though not what some would consider wealthy, Cooper derived an income that was sufficient for him to live well upon.

Good Going in Buffalo Armory.

Fred Schudt, a member of the Roy Wheelmen of New York, was easily the "star" of the bicycle meet at the Sixty-fifth Regiment armory, Buffalo, last Friday night, 16th inst., when he showed a revival of form and in a hard-fought race, succeeded in pushing his wheel over the line first in the final heat of the five mile open. The race was run in two mile heats, the first two and the third in the fastest heat heat qualifying for the final, and Schudt won his heat easily. He rode with good judgment in the final and when the time for the final sprint came Schudt was there "with the goods," although Al. Mercer, of the Sixty-fifth Regiment, and W. E. Bauman, of the Ariel A. C., gave him a hard fight for the honor. Schudt got home first by inches with Mercer second and Bauman third.

In the two mile handicap considerable jockeying resulted and the race came very near ending in a fight. McCracken and Robertson came together while doing the balancing stunt and both hit the floor. Each blamed the other and when they picked themselves up started in to settle the score in the time-honored fashion, but officials separated them before they had hurt each other. The race went to Gus Gurn, from the 110 yards mark. J. N. Tanner rode a good race from scratch and finished second, but the other scratch men did not get placed. E. Felber finished first in the one mile novice. The summaries:

One mile novice—Final heat won by E. Felber, unattached; second, Gus Hart, Standard Wheelmen; third, George Keipper, Ariel A. C. Time, 2:44½. All other riders fell.

Two mile handicap—Final heat won by Gus Gurn, Sixty-fifth Regiment (110 yards); second, J. N. Tanner, Ariel A. C. (scratch); third, Charles McCracken, Bunker Hills (35 yards). Time, 5:13¾. Also ran—M. H. Koch, E. Delling, Al. Mercer, E. Felber, J. Stigelmeir, W. E. Bauman and W. Maisel.

Five mile open—Final heat won by Fred Schudt, Roy Wheelmen; second, Al. Mercer, Sixty-fifth Regiment; third, W. E. Bauman, Ariel A. C. Time, 13:42¾.

"CORK PULLERS" DODGE THE COPS

While Police Waited at One Place, Final Race Was Run Off Elsewhere—

Weintz Gets the Title.

Louis J. Weintz, of the New York Athletic Club, besides being "military champion," is the champion "cork-puller" of the district. He won the title in the series of races conducted by the Prospect Park

the limit man, Matt Barnett, was sent away from a five minute lead, his co-partner Miller declining the issue. Missimer and Kurry also got an attack of "antipedalitis" and declined to start. Rhodes, Reynolds and Schulman went away at a clip from 2½ minutes that left no doubt as to their intentions. The next bunch included Eubank, Frommeyer, Ericson and Hoppe, with 1½ minutes, in turn followed by Raleigh, Warner and Lind, from one minute. The scratch men were Fisher, Wilcox and

coup, suddenly jumped from the bunch. He made good his getaway by a fast sprint and was never headed, winning by a wheel's length from Warner, who in turn beat Hoppe by a foot. Ericson trimmed "Papa" Rhodes for fourth place by about a length. The summary:

1. Walter Raleigh.....	1:00	25:27½
2. Fred. Warner.....	1:00	25:27½
3. Larry Hoppe.....	1:30	25:28
4. Carl Ericson.....	1:30	25:28½
5. Arthur Rhodes.....	2:30	25:28½

The Cork Pullers' championship series comprised a quarter and a half-mile open, and handicap events of one, two, five and ten miles, and the winner in each event received 5 points, second 4 points, and so on down the scale. Although they were club events, no rider was barred from competing and it is said that several professional riders were trounced by the Brooklyn riders. The prizes consisted of four handsome silver cups, the largest of which goes to Weintz. The championship point table follows:

	1st.	2nd.	3rd.	4th.	Total.
1. Weintz.....	10	4	0	0	14
2. Raleigh.....	10	0	3	0	13
3. Wilcox.....	15	4	3	0	12
4. Warner.....	5	4	0	2	11

5, Larry Hoppe, 8 points; 6, Carl Ericson, 7 points; Arthur Rhodes and Frank Fisher, tied with 5 points; 9, Frommeyer, Eubank and Schulman, tied with 3 points; 10, Herman Lind, 2 points.

Three Skills in Indoor Event.

Although only five riders started in the two mile handicap race that featured the games of the Letter Carriers' Association, held on the floor of the Ninth Regiment Armory, New York City, last Saturday night, 17th inst., this fact did not make the race one whit less interesting. The race was won by William Vanden Dries, of the New York A. C., from the 30 yards mark, L. J. Weintz, New York A. C., finished second from 30 yards, and George Cameron, of the same club, was third from scratch. Charles Nerent, of the Roy Wheelmen, fell and in doing so brought Cameron and Weintz to the floor. The "Cork Puller Champion" was the first to recover and thereby beat Cameron for second place. Time, 5 minutes 22½ seconds.

Two Cycle Races in Soldiers' Games.

Two bicycle races were included in the program of events run at the Thirteenth Regiment armory in Brooklyn, last Saturday night, 17th inst. The feature event was the one mile handicap, which was captured by Gus Perden from 60 yards. Dapper little Owen J. Devine, who has just returned from California, made his season's debut and got second from scratch. Wallace Charlton, from 40 yards, finished third. Time, 2:31½. Charlton had 75 yards handicap in the two mile event and ran away with first honors, Devine again getting second from the honor mark. Perden finished third, from the advantage of 90 yards. Time, 5:09.

THE MEN WHO "PULLED" THE MOST "CORKS"



WARNER

WEINTZ

RALEIGH

WILCOX

Cork Pullers of Brooklyn, and although he did not get a place in last Sunday's race, he had already secured enough points to assure him of the title and the big cup that went with it. The affair was preceded by a flutter of excitement which caused a quick and quiet change of course, the police having decided to do some "pulling" on their own account.

The final race of the championship series was run on King's Highway, Brooklyn, last Sunday, 18th inst. Some how or other the police were tipped off that a bicycle race would be held on Twenty-second avenue, the course of the former races, and around 11 o'clock that street looked like a parade of "Devery's finest." "Cops"—on bicycles, on motorcycles, on horses, and some on "shank's mare"—cops everywhere, but no sign of any bicycle riders; they also had gotten "wise," and had moved over to King's Highway. It is not recorded that the "cops" found any "corks."

The race went for ten miles over a two and one-half mile stretch and at 11:50 a. m.

Weintz, the first named doing most of the pacing.

The first turn at 2½ miles was rounded first by Barnett, the others turning in the following order: Rhodes, Schulman, Hoppe, Ericson, Eubank, Frommeyer, Warner, Lind, Fisher, Wilcox and Weintz. The only man out on this lap was Reynolds, who retired with a collapsed rear wheel. The position was not substantially changed at five miles, except that several gaps had been closed. While rounding the next stake (7½ miles) Eubank's front tire came off, and he had to quit. All the men were bunched with the exception of Barnett, who had made good use of his handicap and plugged along in front determined to win. Barnett was not overhauled until the ninth mile when "Papa" Rhodes started a sprint that he could not maintain. As soon as Rhodes tired Larry Hoppe went out and pulled the bunch at a gait that caused several to lose their cherished "corks." About a hundred yards from the tape "Sir" Walter Raleigh, repeating his Irvington-Millburn

RISE OF THE "PRUNE-PICKING KID"

Or How Hardy Downing Emerged from Obscurity and How He Once Subdued a 'Frisco Tough.

Hardy Downing's rise in the cycle racing world was as meteoric as Floyd McFarland's, described at length in the *Bicycling World* several weeks ago, and although Downing is not as deeply dyed-in-the-wool as is his former fellow-townsmen, he has made good at racing and his record this past season was particularly good. He has been mated with Norman C. Hopper, of Minneapolis, for the coming six-day race, and that the team will make an excellent showing is not doubted.

Hardy K. Downing is a native of San Jose, Cal., where he is popularly known as the "Prune-picking Kid." Downing's advance to the front ranks of pedal-pushers has been rapid. He was taken a raw country boy and put into third-rate class by his friends, in order to ride at a meet given in Oakland, a little more than ten years ago. It was his first race and he was about as green as St. Patrick's Day decorations, if the comparison can be applied.

Downing went to Oakland the day of the race with the Garden City Wheelmen and a friend went along to ship home his remains after the race. In those days some of the fastest riders on the Pacific coast were riding in the amateur class and the chances of the hulking "hayseed" were considered about as good as those a performance of "Uncle Tom's Cabin" by a troupe of itinerant barnstormers would be apt to receive on Broadway. Nevertheless, the prune-picker went.

Downing's knees trembled violently and actually knocked against each other as, clad in a pair of loose knickerbockers three sizes too large for him, which had been borrowed for the occasion, and wearing an undershirt instead of the regulation short-sleeved jersey, he was started in his first race by that noted sprinting man, Colonel "Jack" Dermody. He wobbled at the start and a shout of derision went up from the crowded grandstand as one by one the low markers—it was a handicap event—jumped past him. He was nearly out of the race before he started but once under way his confidence revived and before the first quarter was reached Downing was "batting it out" in a manner to puzzle the form figures. Downing rode that race devoid of everything save speed. He rode like a runaway horse, went "wild" past the bunch in the lead and kept on going. His boyish form and peculiar position, that has since become a characteristic, whizzed across the tape open lengths ahead of the noted amateur cracks of the day. In the finals he repeated the performance and captured both the amateur races in which he was entered. From that time on he was ranked

among the champions. Colonel Dermody at once became his manager and in a little over two months the awkward country boy was changed into the amateur champion of the State.

During the gala days of the old nine lap indoor track in San Francisco, Downing was one of the most successful amateurs competing there. The sobriquet of "Kid" had become so thoroughly attached to him that many knew him by no other name. He had developed into a tall, graceful young man with rather long arms and big fists and his easy walk gave him something of the appearance of "Kid" McCoy, the fighter, who was then in 'Frisco. One morning a number of "South of Market" hoodlums, with a contempt for the cycling sport, visited the track and amused themselves by making disparaging remarks about the riders who were taking their morning workouts. Downing was sitting near the track when one of the "toughs" insulted an undersized lad from San Jose. Downing's temper rose and he concluded it was about time for a call down.

"Maybe you don't like it," he said stepping over toward the rough. The group turned toward the "Kid," and after sizing up the San Jose lad, replied that if the latter "buted in" he would "wipe up the earth with him." Downing's blood boiled and he told the Market tough to keep quiet or he would be put off the grounds.

"Ye will, hey? Just try it once," the South of Market trouble hunter bellowed forth, at the same time stepping up to Downing, when one of the crowd caught him by the arm, saying "Cheese it, you bloke, don't y' know that's 'Kid' McCoy, th' scrapper?"

Quick to see his advantage, Downing laid his hand on his opponent's shoulder and said: "I don't want to hurt you, young fellow, but you've got to keep quiet if you want to stay around here." The tough thought it over and left the track.

F. A. M. Man on A. A. U. Board.

At the annual meeting of the Amateur Athletic Union, in New York on Monday, 19th inst., R. G. Betts, president of the Federation of American Motorcyclists, was elected a member of the board of governors of that organization. Betts's election was made possible, of course, by the alliance existing between the A. A. U. and the F. A. M. and is in the nature of strengthening the bond.

Davis's Total Tops 121,000 Miles.

Thomas W. Davis, the famous old cyclist of Peoria, Ill., now in his eightieth year, writes that he has not ridden as much as usual this season, having covered "only" 5,191 miles, which brings his total up to 121,579 miles. Mr. Davis attributes his reduced mileage to "bad luck with tires" and expresses the opinion that the tires of to-day are not as good as those of several seasons since.

HINTZE NOW HEADS BOTH LISTS

Makes a Big Jump and Displaces Early in the Struggle for Mileage and Century Honors.

The month of October brought a shake-up in the standing of the members who are competing in the National Century and Mileage competition of the Century Road Club of America, according to the report for the ten months ending October 31, as compiled by Noble C. Tarbell, Lake Geneva, Wis., chairman of the roads record committee. Herman H. Hintze, the New York member who recently aspired to break motorpaced road records and was prevented by a sheriff, has turned his attention to plugging centuries and has taken the lead from Harry Early, of Bayonne, N. J. Early has headed both the century and mileage lists for several months but Hintze's name now tops both. The National Treasurer, however, stands second in both the number of centuries and mileage ridden. Andrew Clausen, of Chicago, is third in the century competition and the position of the others follows: 4, Alfred H. Seeley, New York City; 5, Fred E. Mommer, New York City; 6, Fred I. Perreault, Malden, Mass.; 7, Ernest G. Grupe, Brooklyn; 8, Henry H. Wheeler, Pomona, Cal.; 9, Emily Leuly, West Hoboken, N. J.; 10, A. D. Rice, Winthrop, Mass.; 11, W. E. Thompson, New York City; 12, H. E. Fischer, West Hoboken, N. J.; 13, Fred Pfarr, New York City; 14, Fred H. Peterson, Newark, N. J. The total number of centuries ridden since the first of the year is 528.

Hintze and Early are, respectively, first and second in the mileage competition and the third man is Henry H. Wheeler, the orange grower of Pomona, Cal. The standing of the other competitors is: 4, A. H. Seeley, New York City; 5, Fred I. Perreault, Malden, Mass.; 6, Fred E. Mommer, New York City; 7, Ernest G. Grupe, Brooklyn; 8, James H. Clowes, Paterson, N. J.; 9, Noble O. Tarbell, Lake Geneva, Wis.; 10, Harold E. Grupe, Brooklyn; 11, Fred Pfarr, New York City; 12, Emil Leuly, West Hoboken, N. J.; 13, O. E. Nylander, New York City; 14, William J. Hampshire, Los Angeles, Cal. During the ten months just ended 59,916 miles have been ridden.

"Bridget" Back from the Farm.

Walter Bardgett, better known as "Bridget," the crack Buffalo sprinter, is sojourning in Harlem for a few weeks. "Bridget" breezed into New York this week, bringing with him some hayseeds from Cad Neidner's farm down in Kentucky where he has been living the simple life since the racing season at Salt Lake City closed. Bardgett will probably remain for the six-day race if a good partner can be found for him.

IN SHAKESPEARE'S COUNTRY

Globe Girdlers Recross the Channel and
Find Scenes That Escape Only the
Most Depraved Scorchers.

Wolverhampton, England, Oct. 23.—In England again, and now in the old, old city of Wolverhampton, near Birmingham! Our cyclometers testify that we have now covered 800 miles in the saddle, but in addition, we have crossed the channel twice.

The journey from Liverpool to London, via Birmingham, probably is of more historic interest and present enjoyment than any other 200 miles in England. We have covered the first 75 miles of it, and London, the center of the world, grows nearer every day. To be sure, we are making no records for we are seeing things. Only the most depraved scorcher could travel quickly through this portion of England, although the roads offer all inducement in their power—smooth surface and gentle gradients. But every few miles we lean our wheels against some vine-covered wall and go to view some ancient church or castle, or stop in some quaint village to look up its pedigree in a valuable little book, and then ramble about to see if we can find all the things mentioned, and a few more.

Upon leaving Liverpool, for London bound, we crossed the Mersey on the New Ferry, as it is called, which is the most direct way of reaching the Chester main road. Until Chester, twenty miles away, is reached, there is nothing of any great interest, but it is a pleasure to ride, for the roads are good and are frequently arched over by immense trees, forming a sort of leafy tunnel through which one passes, getting a few breaths of cool air, laden with the perfumes of the trees. All along the road run green hedges, or low vine-covered walls. Quite frequently, too, one is inclined to clamber hastily over these walls, for the British Motorist is in no wise more considerate than his American brother, and it is somewhat alarming to face a devil-wagon approaching at the rate of 140 miles an hour. Even the speed law is of but little consolation. The question of the effect of motor cars on the roads is being agitated somewhat seriously here. We should say that it was entirely a question of how deep the roads are, for most of the cars we have passed pull up a slice of the road and take it with them.

Chester we found to be a decidedly interesting city; in fact, any American touring England should by all means visit Chester. If they reach it from Liverpool as we did, they will enter at the North gate—for it is one of the few walled cities in England—and after leaving their wheels at a nearby "cycle storage," they may ascend a flight of steps on the right hand side

of the gate, whereupon they will find themselves on top of a wall that was built when England was a child—and before Wellman started for the north pole.

But before encircling the city upon the wall—which is not so old as the city itself—let us understand something of the history of the town. We cannot go back to the beginning, but we can go back a few years. About the year A. D. 55 the twentieth legion of Roman soldiers came to Britain and made its headquarters here, under the General Seutonifus, and it is known that Chester had existed for many decades before the coming of the Romans. In A. D. 73 the city was fortified and walled, and this wall added to, perhaps, in later years, by Ethelfelda is the one upon which we walk. In walking around the city upon this wall we came in order, to "King Charles' Tower," upon which the ill-fated monarch stood and watched his army defeated on Rowton Moor; the "Watts Tower," a fortification erected to guard against maritime foes when the River Dec—far larger than now—washed its walls; and various other towers of more modern date. From the walls one can see the fosse, or moat, which was cut through solid stone to a depth of twenty to sixty feet. This fosse is now used as a canal. The Roodee is also to be seen—a vast oval race course enclosing a green whereupon the Roman soldiers performed their maneuvers. There are hundreds of other interesting things at Chester; palaces, castles, monuments, churches, and the city itself is extremely old fashioned, having houses and shops with projecting upper stories; white panels and black-painted beam; but it is only one city, and time is short, so we bade it farewell and rode on toward London town.

In the next fifty miles we passed through many villages, by many ruined churches, abbeys and castles, stopping for a while at many places. Now we are in another ancient town, for history of Wolverhampton dates from the year 657, when Wulfhere, King of Mercia, held it. Charles I came here after the battle of Naseby, but he stayed only one day. The town being not exceptionally interesting, we will follow the example of our illustrious fellow-visitor, and depart in the morning—for Birmingham, Coventry, Warwick and—happy anticipation—Stratford-on-Avon.

It is but a short distance from Wolverhampton to Birmingham, but even a short distance is tiresome under certain conditions, and to the cyclist, rain is the most notable of these. Traveling as we are, our baggage reduced to the lowest possible point—and that is very low—our only protection against rain is the knee-long rubber capes, falsely alleged to be waterproof. In spite of their porousness these capes shunt a portion of the rainfall to some other spot, thus in a measure protecting one's shoulders, but feet and legs must suffer. Our English cousins, by an elaborate arrangement of mud-guards and defences of vari-

ous sorts, manage to keep fairly dry even in wet weather—but mud-guards haven't appealed to us thus far, so we do not wear 'em. Thus when the mud or water upon the roads is an inch or two deep, it is difficult to determine whether we are riding bicycles or steamboats, for the wheels draw up a lovely fringe of mud, and appear much like one of the small steamboats with the paddle wheels in the rear to be found on the Mississippi. Another result is to plaster the bicycles and our lower anatomy fairly thick with nice soft mud. These were the conditions the day we rode from Wolverhampton to Birmingham; also the day we rode from Birmingham to Coventry; and from Coventry to Kenilworth; and from—but no, that day it was clear, strange to say.

Birmingham is a big town, and a busy town, and an attractive town. Its wide range of industries gives it a peculiar standing in the British commercial world—namely, that of being noted for no one thing, but for its diversity of interests. It is one of the busiest cities of England, but in spite of this fact there are to be seen on its streets—in addition, of course, to its tram-cars—buses which look almost the same as a two-decked tram-car, but which are transported by horses about the city.

After leaving Birmingham we saw nothing of especial interest until we reached Coventry, at one time the greatest producer of bicycles in England. The advent of motor cars has in a measure caused the manufacture of bicycles to become of secondary importance to Coventry, and now it has great motor car factories. We spent but a short time in Coventry, wishing to reach Kenilworth before nightfall, which seems to come about the middle of the afternoon now. In an hour we discerned a red brick village sprawling over a couple of hills, while the tall spire of a church told us that the village was Kenilworth, the place made famous by Sir Walter Scott. The town is a peculiarly picturesque one, seeming to be unable to draw itself together in the compact style customary to English towns. Here is Kenilworth castle, once the property of the gallant Leicester, favorite of Queen Elizabeth, who visited the castle four times. Her last visit of seventeen days in 1575, was marked by festivities seldom equalled. Three hundred hogshead of beer were drunk during those seventeen days. Record does not show how many hogsheads of seltzer were used. The ruins of the castle, which was built of brown stone, are extremely beautiful, many of the towers and walls being half concealed by ivy, the color of which, in some places, now almost matches the brown of the stone, while in other places it is like a green curtain.

We are now in "Shakespeare's Country" and our next stop will be that Mecca of all travelers in England—Stratford-on-Avon.

George E. Holt,
Lester R. Creutz.

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1907 CATALOGUE NOW READY

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IT IS ALL DUE TO OSMOSE

That's Why Your Tires Go Flat Without
Apparent Reason—Just How Osmose
Gets in Its Mean Work.

"Pneumatic tires whether on a bicycle or on an automobile always become more or less deflated in the course of time, even where there is no puncture and the valves are perfectly tight. All cyclists and chauffeurs know that a tire needs pumping up from time to time to keep it hard. This is because the enclosed air constantly tends to escape through the envelope; the phenomenon, which is due to what chemists call osmose, is quite complex and is worth attention," says Cosmos of Paris.

"Under the influence of the compressed air inside, the pores in the elastic substance of the tire enlarge and permit the air to filter through. But there is no such thing as absolute elasticity, for an elastic body when distended never returns exactly to its former dimensions. The difference is very small, it is true, but nevertheless it is appreciable, especially after the lapse of time. The result is that the pores in the rubber enlarge more and more. Besides, the passage of the air through them erodes their borders by its friction and thus enlarges them further. These actions are, of course, infinitesimal, but they are cumulative and finally acquire such magnitude as to render the filtration easier and more rapid.

"All this explains some evident facts; the deflation of tires when left to themselves, and the increased rapidity of the action in a hot place or under rough usage. And to this must be added a fact of considerable importance, which is probably a prime factor in the deflation—the alteration of rubber under the influence of the oxygen in the air. This is double, that is, from a chemical standpoint it is due to two different chemical reactions—a modification of the rubber itself by simple oxidization and a complete oxidization of the sulphur used in its vulcanization. Without going into details, which are yet very obscure, it may be said that the results themselves are well known. They consist of a modification of the rubber, which gradually loses its flexibility, hardens, becomes slightly brittle, and finally cracks. Thus microscopic perforations arise through which the air rapidly escapes.

"To avoid this, there is but one method, and that a radical one—to find some other fluid than air for the inflation of tires. The numerous extended investigations that have been made to this end, have eliminated, in the first place, all liquids, which cannot be employed because they are unelastic and incompressible. Of gases, the best would appear to be nitrogen, which being very neutral chemically, is almost without action

on rubber or the sulphur incorporated with it. Numerous laboratory experiments have shown the good results that may follow its use, and this has entered into current practice more and more. In recent tests of automobiles, tires inflated with nitrogen have behaved very well and chauffeurs now show a marked preference for such tires instead of those inflated with air.

either starvation for want of the proper amount of gas, or choking down of the exhaust through lack of proper facility for getting rid of it. Sometimes it may be that in an old motor which develops an unwonted weakness, the trouble of this nature is bred from the same cause, the immediate difficulty arising from a deposit of carbon on the walls of the exhaust ports

PUTTING THE BOULDER TO GOOD PURPOSE



John H. Hull, of Mount Hope, Pa., is a dealer of the type that knows an opportunity when he sees it. High up on the top of a mountain in the vicinity of the little town in which he does business there is a large boulder facing the main road. Nature could hardly have provided a more appropriate setting for the purpose and he was not slow to appreciate and take advantage of its possibilities in the manner shown by the accompanying photograph. He says

the sign is so conspicuous that all travelers simply must "take notice." And there is no reason why the progressive cycle dealer in every other locality should not see the force of such publicity and do likewise. There are usually large stones and fences galore leading into and out of every town and the man who is out for business cannot do better than to utilize them so that all who run—or ride or walk—may read—of himself or his wares or both.

"The inflation itself is very easily accomplished. Steel bottles containing nitrogen under pressure are to be purchased at a moderate price. These are provided with a stopper to which a pressure gauge is attached and which communicates with a flexible tube ending in a nozzle fitted with a valve connection. Gas is admitted or shut off by merely turning a stop cock so that in this way the operation of pumping is not alone done away with but the danger of deflation is diminished."

Causes of Lost Power.

Frequently it is alleged that motors which fail to come up to all the requirements set down for them, are furnished with too small port area, the result being

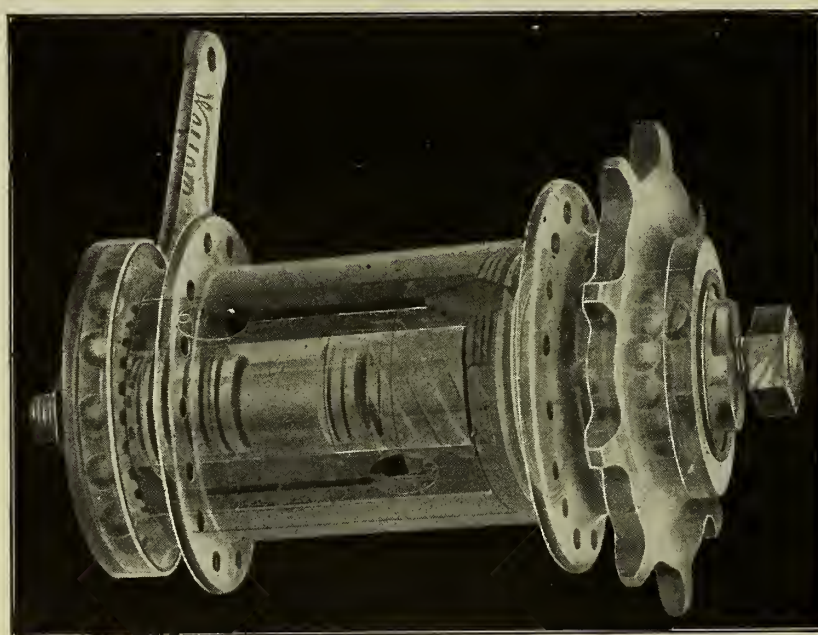
outside the valves. It is comparatively easy to clean the piston and cylinder head after dismantling the machine and the result usually eliminates the preignition which it is intended to remedy. Seldom, if ever, is it thought in any way necessary or expedient to clean the exhaust ports. Yet upon the freedom from obstruction of these depends the vivacity of the motor or, in other words, its success in freeing itself of the refuse products at the end of every working stroke.

"The A B C of Electricity" will aid you in understanding many things about motors that may now seem hard of understanding. Price, 50 cents. The Bicycling World Co., 154 Nassau Street, New York City.

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Elmira, N. Y.

STORING FOR THE WINTER

Some of the Precautions Well Worth
While and With Particular Reference
to Motorcycles.

Probably the great majority of riders, whether of bicycles or motorcycles, never do such a thing as "put away" their machines; that is, not in the sense usually ascribed to this phrase, particularly as applied to its storage for the winter. They ride right up to the end of the season and continue to do so during the winter whenever the opportunity offers, which may be frequently or quite the reverse, according to the severity of the season in different parts of the country. There are a certain number, on the other hand, who forego such opportunities and set about putting their machines out of commission as soon as cold weather sets in, just as religiously as do yachtsmen take their craft out of the water and see that they are properly stored until the following spring.

Where riding can be indulged in only at long intervals owing to adverse conditions it will be found advantageous to do the same thing with the motor bicycles, nor need the process be one that takes a great deal of time nor one that leaves the machine in such a state that a couple of hours' work are necessary to get it ready for the road again. As a matter of fact there is practically but one prime requirement to the task of storing any piece of machinery and that is to see that it is thoroughly cleaned and has its bright surfaces greased to protect them from rust. Anything else is merely incidental, but in the case of the motor bicycle some of these incidentals will amply repay for the small amount of time and attention involved.

And one of these incidentals that should never be neglected is the flushing out of the lubricating oil ducts thoroughly with kerosene, as well as the cylinder itself. Despite the greatest amount of care that can be exercised, more or less dirt finds its way into the lubricating oil and if the latter is permitted to lie in the small tubes for such a length of time it will be apt to gum and become considerably more difficult to dislodge. The same thing is true of the cylinder except that its larger area and greater ease of access do not render the task one of the same nature. Once the machine has been well cleaned externally this should come in for attention. Empty the oil cup, preferably by drawing the oil out of it with an oil gun or syringe, as if this fresh oil is permitted to run into the crankcase it will mix with the half burnt contents of the latter and become worthless. The crankcase should also be drained and the oil thrown away. The oil cup should then be dismounted and if a thorough job is wished this should likewise be done with half of the crankcase.

The component parts of the oil cup should then be thoroughly washed with kerosene and a liberal quantity of the latter squirted through the sight feed and allowed to run into the crankcase. Kerosene should also be squirted into the cylinder above the piston in good sized doses—it will not do any harm to fill the compression chamber entirely, and the engine turned over until the kerosene works its way down the piston rings and drops out the bottom of the cylinder. The engine should be turned over continuously until every trace of old lubricating oil has been removed from about the rings and sides of the cylinder walls.

The ease with which the engine can be moved will be a good indication of this.



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Every particle of old lubricating oil should then be flushed out of the crank case and the wrist pin, connecting rod and big end as well as the flywheels wiped clean. After this is complete the engine should be as clean inside and out as they were the day it came from the factory. Then take a piece of waste and smear all the interior of the engine lightly with fresh lubricating oil as a rust preventative. Reassemble the crankcase, but before doing likewise with the oil cup it will be well to devote attention of a similar nature to that already described to the lubricating oil tank. Flush it out thoroughly with kerosene as well as all its connections so that when the job is finished there is no sign of lubricating oil about it. Then reassemble the oil cup and connections, give all the external bright parts of the machine a light coat of thick oil or grease and the job is finished. The only preliminaries required to put it into commission again will be a supply of lubricating oil in the tank and cup, not omitting to put the amount necessary in the crankcase, and the machine is ready.

THE TWO FORMS OF IGNITION

Wherein the High Tension and Low Tension Systems Differ and the Meaning of Those Terms.

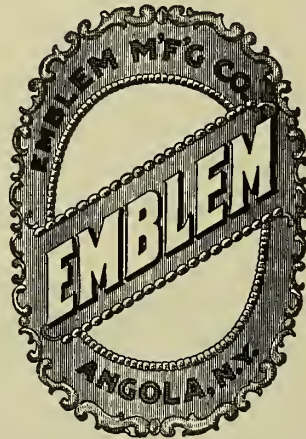
While there is little probability that the low tension system of ignition will ever be regarded as suited to the needs of the motorcycle owing to the added complication in the way of moving parts that it involves, the rising tide of interest in magnetos lends interest to the system as well as the manner in which it differs from the high tension is instructive particularly in view of the prospect of the more or less general adoption of the magneto on the motorcycle in the near future. As its name indicates, the current is utilized to make a spark at a low tension, potential or voltage, all of which are merely different names for the same thing. But as an electric current will not bridge an air gap unless of a very high voltage, other means must be resorted to for creating the spark, and the only practical way of accomplishing this has been found to be that of movable electrodes in the cylinder run by and timed with the engine so that they are either struck together, wiped against one another or suddenly snapped apart.

The spark that follows is really a hot flame on a small scale and this is one of the great advantages claimed for the system by its advocates. Others are to be found in the fact that apart from the mechanical ignitors on the engine it requires an extremely simple and durable outfit. This consists of a low tension magneto run by the engine and connected directly to the ignitor usually without the intervention of a coil. The magneto itself is equally simple as it also carries but one winding on its armature. This type is also used with a non-vibrator coil and jump spark plug.

In the high tension magneto proper the usual secondary winding of the induction coil is placed over the low tension winding on the magneto armature itself which thus combines the functions of generating the current and converting it to one of high tension at the same operation. The condenser of the induction coil is usually made to serve as the upper cover of the magneto armature in order to protect it from dirt and moisture. This type is readily distinguished from the one described just previously in that it requires no external coil such as is needed for the latter. It is, in fact, an entirely self-contained system of ignition, requiring but one connection in the case of the single cylinder machine—that from the magneto to the plug. Perhaps the two systems may be most briefly and comprehensively distinguished by saying that the high tension employs a spark plug while the other employs none but instead uses a complicated form of mechanically-operated igniter.

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Hudson

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Hudson

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Hudson

Hudson

ABOUT THE PLANETARY GEAR

Its Adaptability to Motorcycles Instanced
by its Application to a Foreign Ma-
chine—How it Operates.

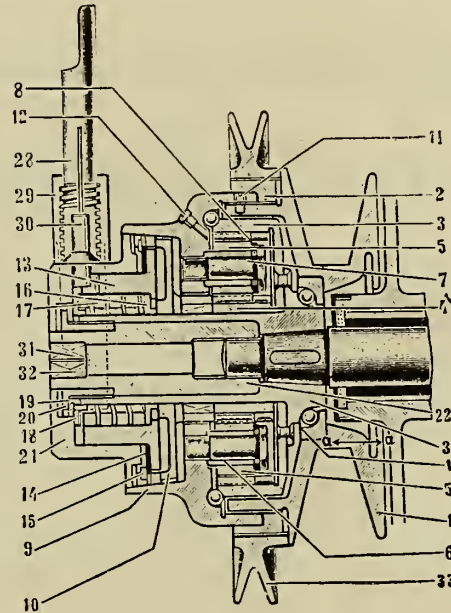
Owing to the limitations of space and weight as well as the consideration of initial cost, it readily may be appreciated that the range of types of change speed gears that is available to the maker of the motorcycle is extremely small. As a matter of fact, there is but one that lends itself readily to the needs of the motorcycle as at present constituted. This is commonly known as the planetary gear in this country and as the epicyclic or crypto gear abroad.

All the gears are in the same plane and as the teeth of the internal gear are necessarily cut on a sort of ring or flange extending upward from a plate, one side and the periphery of the gear are naturally enclosed, while a second plate fastened to the other side encases the whole gear, making a very compact and self-contained arrangement. In the majority of instances this cover or closing plate also serves the double purpose of carrying the spindles on which the planet wheels revolve. To those not familiar with things of the kind, this description may make things appear complicated, though in fact, they are quite the reverse, for, as already stated, the planetary gear is the most simple and compact of its kind.

A little study is necessary to understand exactly how the changes of speed and direction are brought about. For example, the gear just described is capable of giving two speeds forward, one of which will be at a very low rate and the other what is known as a "direct drive" the speed of the machine being the same as if no gearing were interposed. In addition it also provides a reverse, which, however, is hardly of great importance to the motorcycle though more so to the tricar. As a first principle it will readily be plain that if the entire gear mentioned is locked together and fastened to the sprocket or belt pulley of the engine there will be no change in speed. This is the direct drive or high speed. The low speed is brought about by holding the internally toothed ring fast thus causing the engine to drive the sun wheel, attached directly to the extension of the crankshaft and the planet pinions. As the latter cannot turn the internally toothed ring, they compel the enclosing plate to which they are attached and which also carries the driving pulley to revolve at a speed proportional to the difference in the size of the two gear wheels—the driver and the driven.

To obtain these changes it is customary to employ some form of friction clutch to press against the enclosing plate in order

to obtain the high speed, and to employ a brake band on the rim of the internally geared ring in order to hold it fast when the low speed is desired. Where a reverse is also required, a second brake band acting on the rim of the flange attached to the enclosed plate is provided, in such a case both of these being practically floating rings while the engine shaft carries the sun gear. So that for both the low forward speed and the reverse the planet pinions revolve between the sun wheel and the internally toothed ring, the result being dependent upon which part of the gear is held fast. Consequently if the plate carrying the



planet pinions is prevented from rotating relatively to either the sun or planet pinions, or what amounts to the same thing, if either of the latter are prevented from rotating relatively to one another, no variation in speed can take place between the driving and driven members.

To illustrate this theoretical outline of the functions of the planetary given above, the two speed gear employed on the German N. S. U. motorcycles, which may be taken as an example, though it is well to observe before so doing that while such gears will be found to differ in many instances, the fundamental principles are always the same, the changes being necessitated by the arrangement of the remainder of the mechanism. The accompanying illustration shows a vertical section through the gearing. The motor shaft, however, is shown full in the centre, and at the right will be noticed the bearing on the crank case. Near the right-hand bottom corner of the illustration will be noticed two figures; 1, the lower one of these two, indicates the grooved belt pulley. If this pulley be examined carefully it will be seen that the left-hand side has a lateral extension, and on to this extension is screwed the part 9, the two being locked together by a screw 11; 12 is a lubricator. The part 9 extends inwardly towards the center, and

has fixed to it the planet spindles 6 and 7, on which are mounted the planet pinions 5. Thus the planet pinions are carried on the belt pulley which corresponds to the closing plate above mentioned. The pinions gear with the sun wheel 4, and with the internally-toothed wheel 3. The internal teeth are cut in the flange of a vertical ring, which is riveted to a sleeve, also marked 3 in the illustration. This sleeve is keyed to the latter part of the motor shaft, and is locked in position by a long nut 22, which passes down the sleeve and is screwed on to the parallel extremity of the motor shaft. The pulley 1 and its extension 9 are mounted upon the parts 3 by a double ball bearing, which will be easily seen in the illustration. The internally-toothed wheel is thus permanently connected to the motor shaft, and forms the driving member of the gear. At the left-hand side it will be observed that the part 9 is coned out and contains a correspondingly coned member 10. These two conical parts form a friction clutch. The sun wheel 4 is mounted loosely on the sleeve 22, and has dogs or projections extending to the left. Engaging with these dogs are other projections to the right from the cone 10. Hence the sun wheel is prevented from turning relatively to the cone 10; and when the friction clutch is engaged the gearing is locked solid, because the sun wheel 4, being obliged to rotate with the cone 10, also rotates at the same speed as the planet carrier 9, and internal working of the gear is prevented. At the left hand of the gearing is a stationary cover 21, and within this is a flanged ring 13. This ring does not rotate, but can be moved to the right and left. The ring 13 has an internal flange which butts against the boss of the cone 10, and is pressed into contact therewith by the expansion spring 17. The spring butts at its outer end against the ring 18, which is held in position by the ring 19, and finally by the flanged sleeve 20, which rotates with the sleeve 3 and the nut 22. On the outside of 13 are two projections 31, arranged diametrically and passing out through the cap 21. A fork 29 passes down behind these projections or pegs and in front of suitable faces on the cover 21. The lower ends of the forks are tapered inwardly.

When the fork is in its lowest position, as indicated by the dotted lines in the illustration, the ring 13 is pushed by the spring 17 well over to the right, and forces the cone 10 into contact with the internal cone, thus locking the gear as already described. The top of the fork is provided with an internal screw thread, into which screws the foot of the rod 28. On the top of the rod is a handle by which it may be rotated and when this handle is turned clockwise the fork climbs up the rod and in so doing wedges the tapered parts of its ends with the projections 31, which are surrounded by rollers 52, to reduce friction. As the fork is raised the ring 13 is pushed away

to the left and draws back the right hand end of the spring 17, relieving the pressure which forced the cone 10 into the clutch member 9. This disengages the friction clutch and the engine can be run without transmitting motion from its shaft to the pulley 1. Besides the small internal flange the ring 13 has a large external flange, and between the left hand face of this and the back of the cap 21 will be noticed a ring 14, indicated by a thick black line. The outer edge of this ring has two projections, which engage in corresponding recesses in the left hand edge of the cone 10. Hence the ring 14 can be moved to right and left relatively to the cone 9 but cannot rotate independently of it. As has already been

seen, the cone 10 has a similar connection with the sun wheel 4. When the fork 20 is drawn still higher up by the further rotation of the handle top of the rod 28, the ring 13 is pushed so far over to the left that the ring 14 is gripped between its external flange and the back of the cap 21. As the grip tightens the ring 14 is gradually brought to rest. Stopping the ring 14 from rotating also stops the cone 10, and this in turn stops the sun wheel 4. It has already been made plain that if the internally toothed ring drives and the sun wheel is held stationary, the driven part which carries the planet pinions is rotated at a reduced speed, and this is exactly what happens in this case. The internally toothed

ring 3 being fixed to the motor shaft is the driving member of the gear, the belt pulley 1, with its planet carrier extension 9, is the driven member, and the wheel 4 is the now stationary sun wheel.

The pinions of the N. S. U. gear are designed to give a reduction of about 35 per cent. The operating handle only requires a short movement and is provided with stops to prevent its being moved too far in either direction. When directed forward, the high gear is in action, when back, the low gear is brought into operation, and midway between corresponds to the free-engine position. One of the merits of the planetary is that it lends itself to a gradual change from one speed to another.

Veeders for Motorcycles.



Veeder Trip Cyclometer for Motorcycles.

Price complete with Motorcycle Striker, \$2.50.

Veeder Trip Cyclometers are now made with a strengthened case, making them suitable for the more severe service of motorcycle use. A new motorcycle striker is also provided, which clamps securely to the spoke of a motorcycle wheel.

Motorcycles need regular lubricating periods—not based on time, but on **mileage**. In addition to the practical, mechanical reasons for having a Veeder on your motorcycle, there is the further reason that—

“It's Nice to Know
How Far You Go.”

FREE BOOKLET ON REQUEST.



The New Veeder Motorcycle Striker.

THE VEEDER MFG. CO., 36 Sargeant St., Hartford, Conn.

Makers of Cyclometers. Odometers, Tachometers, Tachodometers, Counters and Fine Castings.

PRODUCTS of our BICYCLE DEP'T

Frame Tubes

Fork Stems

Seat Masts

V and Flat Belt Rims for Motor Cycles

HANDLE BAR TUBING

MANUFACTURERS OF HIGH GRADE MATERIAL ONLY

SEAT POSTS

Fork Sides

Rear Forks

Rear Stays

THE STANDARD WELDING CO., CLEVELAND

1906 SALESMAN'S SAMPLES RACYCLES AND MIAMIS

Stand the Test of a Railroad Wreck

THE FOLLOWING TELEGRAPH COPIES TELL THE STORY

To THE MIAMI CYCLE & MFG. CO., Middletown, Ohio.

Warren, Tenn., Nov. 17, 1906.

In bad train wreck en route Memphis. Bruised up but safe. Trunks and samples in debris, supplies in creek. Rush new outfit care of Gayosa Hotel, Memphis.

JOS. REDLINGER.

To JOS. REDLINGER, % Gayosa Hotel, Memphis, Tenn.

Middletown, Ohio, Nov. 17, 1906.

Your Saturday message just delivered. Glad you are safe. Will replace outfit as advised, but need you.

THE MIAMI CYCLE & MFG. CO.

To THE MIAMI CYCLE & MFG. CO., Middletown, Ohio.

Memphis, Tenn., Nov. 19, 1906.

Send new trunks and supplies only. Will take more than railroad wreck to hurt our new construction. Racycles and Miamis escaped without scratch, but trunks smashed to pieces.

JOS. REDLINGER.

MR. DEALER, let us send you our 1907 catalog describing this new, non-breakable construction before you order bicycles with the ordinary, standard 20-gauge tubing.

THE MIAMI CYCLE & MFG. CO., Middletown, Ohio

HENRY DE RUDDER, General Agent for Holland and Belgium, Ghent.

E. SANCHEZ RUIZ & CIA., General Agent for Mexico, Pueblo.

R. SUMI & CO., General Agent for Japan, Osaka.

F. M. JONES, 1013 Ninth St., Sacramento, Calif., Sole Pacific Coast Representative.

The "One Best Buy" of the 1906 Season
will be
An Even Better "Buy" for 1907—
The Yale=California Motorcycle.

See it at the

GRAND CENTRAL PALACE SHOW, NEW YORK, DECEMBER 1-8.

More power; more speed; improved grip control; new tank; noiseless muffler and a cushion fork that is a real cushion.

Two out of three Yales finished the strenuous F. A. M. endurance contest; three out of four made perfect scores in the Chicago endurance test.

THE CONSOLIDATED MANUFACTURING CO., Toledo, Ohio.

F. A. BAKER & CO., 37 Warren Street, New York, Distributing Agents for Greater New York and Long Island.

Continental Rubber Works Suit.

We desire to notify the trade that our suit against the Continental Rubber Works of Erie, Pa., under the Tillinghast Patents is still pending, and that purchasers and users are equally liable for infringement.

The following manufacturers are licensed to make and sell single tube tires under the Tillinghast Patents:

Hartford Rubber Works Co.

Diamond Rubber Co.

Fisk Rubber Co.

Pennsylvania Rubber Co.

Indiana Rubber &
Insulated Wire Co.

Goshen Rubber Works

Lake Shore Rubber Co.

B. F. Goodrich Co.

Goodyear Tire & Rubber Co.

Kokomo Rubber Co.

International Automobile &
Vehicle Tire Co.

Morgan & Wright.

Boston Woven Hose
& Rubber Co.

SINGLE TUBE AUTOMOBILE & BICYCLE TIRE CO.

THE BICYCLING WORLD and MOTORCYCLE REVIEW

FOUNDED 1877

Volumè LIV.

New York, U. S. A., Saturday, December 1, 1906.

No. 10

WHAT THE PALACE SHOW PROMISES

Some Big Surprises in Motorcycles to be Revealed To-night—Who and What will be There.

For the first time it may be said that motorcycles will cut a figure in one of the automobile shows held annually in New York—the one which will be inaugurated tonight at 8 p. m. in Grand Central Palace, and which will hold the boards during all of next week. It will be but a small figure, of course; motorcycles will be immensely overshadowed by the motor cars, but never before was there half so much interest in them, and never before have they been mentioned in the show advertising; that they are now being mentioned even in a small way is as significant as it is unusual.

With the interest in motorcycles mounting higher with the days, it is not unlikely that this may prove the last exhibition in which they will be permitted to be so overshadowed—or in which they will be mixed with the ponderous cars. The idea of a motorcycle show, possibly in conjunction with bicycles, pervades the atmosphere and has been discussed. That the year 1908 may witness something of the sort is well within the realm of possibility.

Efforts were made to induce the sponsors of the Grand Central Palace show to set apart a section of the building for motorcycle exhibits in order that a "motorcycle row" might be created, and as a result, five of them have been closely grouped on the gallery. The Yale people were the ones who suffered most in the allotment of space; their display had been tucked away in the extreme north-east corner of the building but on the gallery floor; the main floor will be given wholly to automobiles.

Although the official catalogue lists but seven exhibits of motorcycles, it is quite probable that more than that number will be in evidence when the doors are opened. There was not space enough to accommo-

date all who applied and the usual eleventh hour rush has brought much disappointment in its train. The most it achieved was to have lifted the bars prohibiting the subleasing of space. When this was done, at least three would-be exhibitors of motorcycles went on a grand hunt to sublease space and at last accounts they were still hunting.

The seven exhibitors officially booked are as follows:

Aurora Automatic Machinery Co.—Aurora motors and motorcycle components.

Hendee Mfg. Co.—Indian chain driven motorcycles.

Reading Standard Co.—R-S chain driven motorcycles.

Consolidated Mfg. Co.—Yale-California belt driven motorcycles.

G. H. Curtiss Mfg. Co.—Curtiss belt driven motorcycles.

Wagner Motorcycle Co.—Wagner belt driven motorcycles.

American Motor Co.—M-M belt driven motorcycles.

In addition, the G & J Tire Co. will display their new motorcycle tire for the first

(Continued on following page)

For Protection in Cuba.

The patent laws of Cuba are that wide open that the Havana Chamber of Commerce is urging American manufacturers to protect themselves by registering their trade marks. Otherwise the laws are such that any "shark" is free to register in his own name the trademark of any article brought into the country and then hold onto it until he is paid his price for transferring it to the rightful owner. The cost of Cuban registration is but \$12.50.

Pope Has Two-Speed Coaster Brake.

It has just come out that the Pope Mfg. Co. has a two-speed coaster brake "up its sleeve." It is the creation of the veteran inventor, James S. Copeland, but when it will be placed on the market has not developed.

READING TO BECOME A CORPORATION

Proprietor Remppis Enlists Strong Men and Forms \$300,000 Company to Take Over His Business.

The Reading Standard Cycle Mfg. Co. is about to cease its days as a proprietary establishment and is to become a full-fledged corporation under the laws of Pennsylvania styled the Reading Standard Co. All preliminary steps to that end have been taken and the charter probably will be issued next week. The capital stock will be \$300,000, of which \$100,000 will be represented by preferred shares.

Although operated under a company title the Reading Standard business has been the sole property of W. F. Remppis and represented a brand which he had plucked from the burning—a business which he had rescued in the nick of time and by a display of energy and aggression had firmly placed on its feet again. Since he earnestly threw himself into motorcycles, Mr. Remppis has viewed the situation in a large way and with enlargement in view, has enlisted the support and capital of a number of the strong men of Reading. They got together late last week and after completing the necessary formalities elected the following temporary officers:

Daniel F. Printz, president; Jacob B. Fricker, secretary; Lambert A. Rehr, treasurer; George W. Bard, J. M. Hertlein, Jonathan Mould, F. W. Leitenberger, Charles A. Miller, William F. Remppis.

After the charter is issued the permanent officials will be chosen and then as now, Mr. Remppis will be constituted the active and guiding hand of the business.

The transfer does not in any way affect the W. F. Remppis Co.'s decorative iron business which, as previously was the case, will remain a separate and distinct institution.

time and the exhibits of C. F. Splittorf and the Pittsfield Spark Coil Co. are among those that will hold more than passing interest for motorcyclists. The New York Sporting Goods Co., which was among those unable to obtain space, has rented parlors at 423 Lexington avenue, opposite the entrance to the Palace, and will there have a cycle and motorcycle show, all its own.

From the purely motorcycle standpoint, there was never a function that held keener interest. There is not one of the machines to be staged that has not undergone marked betterment, while curiosity over the 1907 Indian and the 1907 R-S is at fever heat. Save that it is an entirely new machine, built wholly in the Hendee factory, practically nothing is known of the Indian. One of the few things about it that has just leaked out and smacks of sensational change, is that the short motor chain has been eliminated; for it has been substituted a gear drive running in an oil bath; something rather radical in the way of a special coaster brake is also promised, among other things.

More is known of the new 3 horsepower mechanically-operated R-S—its salient features were recently described in the *Bicycling World*—but few have seen it and very many are anxious to do so. The 2½ horsepower R-S, employing the Thor motor and components also will be uncovered for the first time to-night; not more is known of the new Thor productions than of the other radically altered creations and they also have whetted much curiosity. Last but by no means least in the R-S exhibit will be the new motor tandem—the first genuine machine of its sort and one that opens a new avenue. Manager Sherman has found time to discover a new lubricating oil and with what may have been a twinkle in his eye, he says it's drinkable and makes man himself feel as good as oil ever made a motor feel; he expects to have a R-S tank filled with it and to dispense "samples" to prove his assertion.

The G. H. Curtiss Co. is said to have a new side car that will be shown.

Apart from the motorcycle exhibits, there will be found in the aero department at least two curious vehicles of motorcycle type—Curtiss's "wind wagon" and a bicycle with propellers, designed by Prof. Pickering of Harvard University.

Goods for the Holiday Trade.

Although many dealers do not know it, the Gendron Wheel Co., Toledo, Ohio, in addition to making bicycles, produce large quantities of boys' velocipedes and miniature express wagons and "automobiles." The fact is of interest at this time when the more enterprising cycle retailer is making ready to bid for the holiday trade and realizes that such articles are not only closely akin to his regular stock but constitute holiday gifts of a most desirable form.

NOW HAS A DOUBLE CLINCH

G & J Motorcycle Tire Undergoes a Change
Which is not, however, Either new or
Untried.

The G & J Tire Co. have a new tire, which paradoxically, is not a new tire. It is their new motorcycle tire but it is not new in any other sense, as it is patterned on the same lines as the well-known G & J bicycle tire and wood rim, and is accordingly not an experiment so far as either construction or experience in its use goes. This will be evident from the accompanying illustration of it in section which will be immediately recognized as differing in no way from the standard G & J detachable bicycle tire. The new tire is said to be



easier to handle in every way than the motorcycle tire formerly made under the G & J patents.

Moreover with this construction of tire and rim with their double clinch it is practically impossible to pinch the inner tube and in consequence there will be no more of that unpleasantness usually known as a blow out, or a blow off.

In connection with the marketing of the new tire the G & J Tire Co. have praiseworthy inaugurated a system of rim inspection at the factory which will guarantee that all rims sent out are perfect in every way. The rim is a two piece hollow metal construction, giving it an attractive shape and is grooved exactly the same as the wooden bicycle rim. This construction makes it very stiff and it is not thought possible for it to get out of true in use. These new tires are being marketed in the regular G & J corrugated tread as shown in the illustration already referred to, as well as in the Bailey tread. The rims and tires are now being made in 2¼ and 2½-inch sizes and within a short time will also be made in 1¾ and 2-inch sizes.

How Water Hurts Tires.

It is most difficult to instill into the mind of the novice the fact that the rubber tire, which by its very nature should be waterproof and impervious to moisture, is injured more rapidly and to a greater extent

by the presence of water than by any other single cause, unless possibly it be the direct rays of the sun. Water outside the tire does it no harm, however. It is when it is allowed to permeate into the interior and come into contact with the canvas lining the walls, that the damage is done. Whenever a tire is used when the outer walls are cut through even as far as the first ply of fabric, moisture gets in and begins its work which ultimately ends in the destruction of the entire shoe. Another means of destruction hardly less certain, is to run on slack tires. When the tire is not properly inflated the beads do not fill out the flanges in the rim and the washer under the nut which retains the filling tube fails to make a good joint at the rim. The result is, of course, that water sooner or later finds its way into the interior, and does its work without giving any outward indication of its presence until the harm has been done. For this, if for no other reason, it is never safe to allow the tires to fall even to a moderate degree of slackness.

Trivial Causes of Motor Trouble.

When the running of the motor points to faulty ignition and after carefully investigating every part of the system no fault is visible, it may be taken for granted the majority of cases that the timer contact breaker is responsible. That is, if the battery, plug, wiring and switch are right, it is pretty safe to assume that the contact breaker is at fault. It is not easy to detect a derangement in this part because frequently there is no visible sign of anything wrong. As a matter of fact, it does not fail, but merely does its work poorly with the result that an annoying miss is apparent by the irregularity of the explosions. But it may go wrong and still occasion no actual missing; the engine will lose power, refuse to climb hills or pick up under any load, exhibiting every symptom of carburettor trouble. It is utterly lacking in that snap and liveliness which constitutes the difference between a machine in first class running order and one not the mark, though it will run and averse to starting. Any one of several utterly trivial things may be at the root of the trouble; the points may be dirty or too far apart or too close together or other parts may not be functioning properly, but the most usual cause is a faulty adjustment and as this is often only implies a fraction of a turn of a screw or the other it is easy to realize why the trouble is not visible.

In the Retail World.

New York, N. Y.—Metropolitan Motorcycle Co.; L. Foss, retires; George Andes, continues.

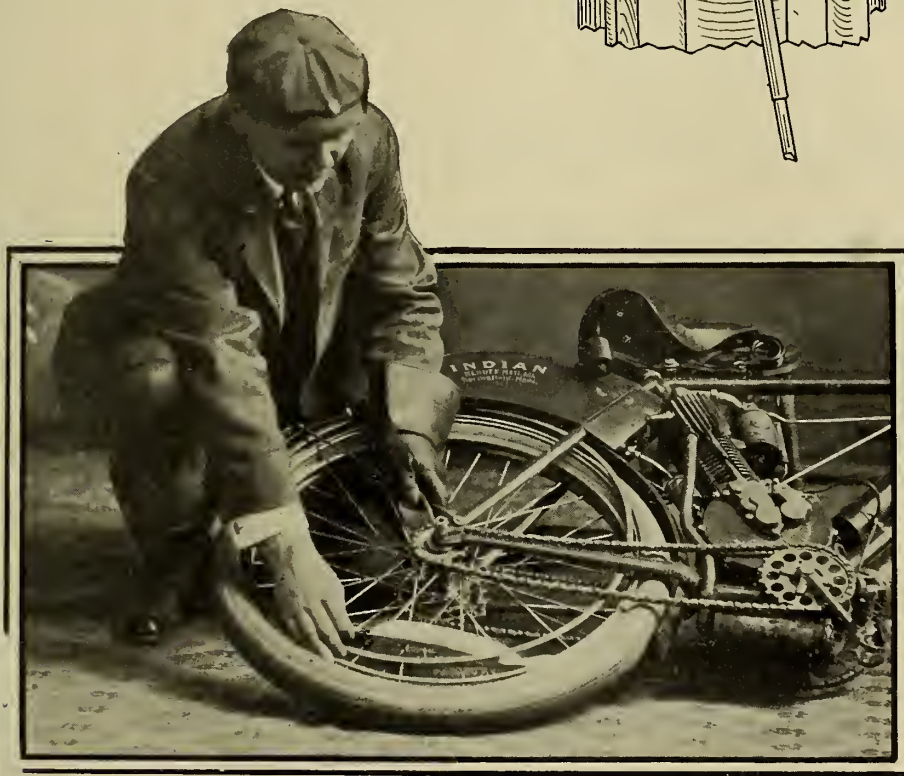
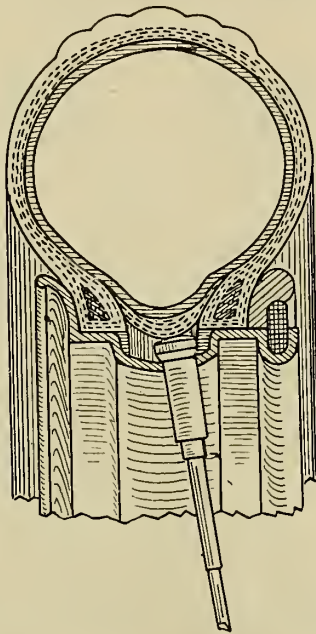
Jersey City, N. J.—Fred Guest, 712 Avenue D, store damaged by fire. Loss, \$1,200, covered by insurance.

GOODYEAR'S TIRE FOR MOTORCYCLE

Second of Mechanically-Fastened Type Offered for Such Use—How it is Secured and Detached.

The Goodyear Tire & Rubber Co.'s new tire for motorcycles of which mention was made in the *Bicycling World* last week, is now ready for the public. So far as the tire itself is concerned it is not unlike the ordinary clincher. The chief difference lies in the rim. Of this one side is made similar to the regulation clincher rim while the other in place of the usual flange has a removable one that drops into a recessed flange or socket extending downward and forming part of the rim itself. So that,

locking ring it is split on a gradual taper so that in order to reverse the process or take off the tire, it is only necessary to use



As makers claim, a 26-inch tire is put on a 26-inch rim—it does not have to be forced over a flange which makes the operation equivalent to putting a tire of this size on a rim an inch too big for it.

The tire is merely slid onto this rim until one edge of the bead is under the flange on the rim. The removable flange similar to the regulation clincher type is put in place and then a light spring steel ring is pressed into place, fitting snugly in the recessed downward flange already mentioned. This is termed a locking ring and once in place it holds the tire firmly, the grip of the latter on its rim not depending on the degree of inflation, although another exclusive feature of this tire—that of the specially woven wire base on which it is built, gives a firm hold on the rim when inflated. At a portion of this steel

a small screwdriver or similar tool and pry up the ring at this point. This causes the ring to snap off when the removable flange and the tire may be lifted off after it without further trouble. Considered either from the point of putting it in place or taking it off the rim the process is equally simple and the result in the former case secure—features that should win for it instant attention. The tire is, in fact, the second of the mechanically-fastened type offered for use on motorcycles although that type is in considerable use on automobiles.

S. G. Rigdon, of the Goodyear staff, recently has been demonstrating the tire to the motorcycle manufacturers, having as his assistant L. J. Mueller, the transcontinental motorcycle record holder, who, in the role of demonstrator, is shown in the accompanying photograph.

ASSEMBLERS "OWN" AUSTRALIA

Demand for Nameplate Goods Limited and Diminishing—Trade is in Flourishing Condition.

"Owing, no doubt, to the general prosperity of the State, the cycle trade is in a very buoyant condition," writes an Australian correspondent. "The number of jobbers and suburban fitters and repairers seems to be on the increase, and there are great numbers of people awheel, although it is very early in the season. It is confidently expected that as soon as the weather settles down, and the warming sun has a chance of making life out of doors pleasant, that the roads will be thronged with wheelmen and wheelwomen, too, and in a greater degree than in the boom time.

"In regard to the state of the trade, it must be said that the local assemblers are doing the bulk of the business, which means that the vendors of imported machines are, if anything, falling back. By far the greatest number of bicycles built or assembled here are of English parts, and these principally the B. S. A. pattern. There are several other component parts used—Eadie, Chater Lea, etc.—but very few parts of American origin. Of the completed machines on the market at present, those of American make are the Massey-Harris, Red Bird, York, Columbia, and Tribune, while those of British manufacture are the Humber, Rover, Swift and Raleigh. But it is safe to say that the cycles built of B. S. A. parts easily outnumber all the above combined.

"Almost every other machine has a free wheel incorporated in it of one make or another, many with a coaster-brake and many without it. In the absence of a coaster-brake, the Bowden rim brake is one of the most favored, nicked rims being used in great numbers, which adds to the appearance of the machine in no little degree. In regard to variable gears, these are distinctly making headway, as in Great Britain, where the standard patterns of all the leading makers have a changeable gear of one make or another embodied. This, as far as we can judge, has given a decided 'fillip' to wheeling in that effete country and the great number of the devices referred to have given the public a large and varied assortment from which to make a selection. This marked variety of cycle accessories in Great Britain has been a gold mine to the manufacturers in that country, including the bicycle makers, for it has had a tendency to popularise wheeling. We follow in no small degree the same lines; one may obtain almost any kind of device, or machine, and, if it is not then in the country, and the customer can wait, it will invariably be obtained—imported—for him."

The Dealers Who Pinned their Faith to National Bicycles

in 1906

were the men who did business on

"THE SUNNY SIDE OF EASY STREET"

They had the bicycles with which to quickly answer the "Show me" demand—the bicycles that are not like the common run of bicycles—the bicycles that have individuality and talking points (which are merit points also) and which when sold stay sold and sell others.

**If Your Business Needs a Tonic, Why
Not Try the National Agency for 1907?**

NATIONAL CYCLE MANUFACTURING COMPANY
BAY CITY, MICH., U. S. A.

**Comfort
Resiliency**

and 45 per cent. Saving in Tire Maintenance are the essentials
of the ever reliable

Fisk Bicycle or Motorcycle Tires

Like all Fisk products, they have a Quality and a Construction that is exclusive—real merit—through and through—that makes their distinct superiority apparent.

WILL OUT-LAST TWO OR THREE OF OTHER MAKES

THE FISK RUBBER CO., Chicopee Falls, Mass.

THE BICYCLING WORLD and MOTORCYCLE REVIEW

FOUNDED 1877

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Change of advertisements is not guaranteed unless copy therefor is in hand on MONDAY preceding the date of publication.

Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should
Address us at P. O. Box 649.

NEW YORK, DECEMBER 1, 1906.

"Enclosed is \$2 for a year of the *Bicycling World*. I have straddled six different motorcycles and think that is sufficient to enable me to recognize the best paper for cyclists and motorcyclists when I see it."—Percy Drummond, Newark, N. J.

What of a Cycle-Motorcycle Show?

It is not strange that the first ripples of a demand for a show should be discernable on the surface of the motorcycle pool. The increase of public interest in motorcycles, the increase in the number of manufacturers and of the total output, to say nothing of the wealth of improvement that has been made and is being made, all combine to make men who are proud of their efforts dissatisfied that their creations should forever remain in the deep shadows of automobile exhibitions.

This restlessness is simply another symptom of the truth of the assertion that automobiles and motorcycles will not "mix," certainly not until the bubbles break and the froth is blown off the larger industry. Until this comes to pass the idea that at present obtains with those dealing with automobiles will dominate the situation; it it perhaps best represented by their frequent

question, What's the use of fooling with an article paying but \$40 or \$50 profit when it is easier to sell automobiles which net \$200, \$300 or \$500?

Already it has been abundantly demonstrated that it is the interests of bicycles and motorcycles that are firmly united and it would seem that a show in which both were staged would be well worth while. It is worth serious consideration at any rate and if the expressions of personal views that have been let fall are to bear fruit, the show in Grand Central Palace should not be permitted to close its doors until at least a consensus of opinion and agreement of some sort is reached. This will enable the Cycle Manufacturers' Association with which several motorcycle manufacturers are identified, to say whether or no its weight will be thrown in favor of such a show. There would seem no room for doubting that the keen interest in motorcycles would help bicycles and that the latter would serve the other some "good turns" at a function of the sort.

The Way to Make Business.

The average advertiser, especially the local advertiser, is too prone not to realize the full value of his opportunity and to work in too much of the superlative adjective instead of letting loose a little direct and straightforward argument. If a thing is so, there must be a reason, and the statement of the reason always is worth reading—if it is a good one, and more than that, it is pretty apt to be read even when it is contained in an advertisement. And this is especially true in the case of advertising which is placed in country papers, for the readers as a rule have more time to devote to reading than their city cousins, and consider it a part of their religion to read everything contained in the four sheets with as great circumspection as they do the local news items. And moreover, it can be done to better advantage in mediums of this class for the very good reason that the space is far less dear than in any other sort of periodical.

"Little Joe Peele, the advertiser," of Taboro, N. C., has evolved this principle without tuition and without any other experience than this. By the simple use of facts which are known or are credible, he has adroitly built up his bicycle business where two other and older dealers have failed. All this is told in another column. But what is more to the point than the success

of a boy down in North Carolina, who took to the bicycle to save his lungs and later took to the bicycle business to save his stomach, is the fact that that same boy early grasped the notion of talking to the readers whose attention he purchased at so much per agate line in a strain which would appeal to them. He saw them read a string of alleged testimonials from people who had cured sore toes with Peruna—and invest their little dollar straightaway. He saw them pick up the weekly Bugle and read of the benefits of breakfast powders—and buy breakfast powders. He thought it over, and then went to every doctor in town and got him to tell what he thought of the bicycle as a healthful device and a curative method of developing the human body. When he got a series of such statements he bought a lot of space in the paper, hung them up at the top, and then filled in the balance of his hired lot with some of his original matter moulded directly on the lines of the breakfast powder "copy" which it was his observation, had brought in business for the breakfast powder people. What it had done for them—what the testimonials had done for the people with the sore feet, it did for him. And it did it for no other reason than that it was shaped in a manner which would appeal to his audience.

A two thousand dollar metropolitan advertising man, probably would have produced in the same space, a most attractive display of material, would have extolled the structural merits of the goods, and the fidelity with which their manufacture was overseen in letters twelve points high. After one repeat, he probably would have cut out the medium as being of no value. The boy who learned to ride to drive away the "phthisis," however, learned along with his early wabbles on the bicycle another lesson than that of keeping his balance. And his love for the machine which carried him over the road to health, so carried him along the other road which so often leads in the opposite direction, that even though he may never be wealthy, he at least has developed an individual business and an individual name for himself.

And in doing this he has employed none of the arts of the trained advertiser, but simply and crudely, has conveyed his message. His heart is in the work, and where there's a will there's a way. The genuine spirit of eager effort to accomplish something with the weapon his cure had given

him, is the spirit which makes for success.

It is not that every successful advertiser must feel a debt of life to the wares he displays, but rather that he should feel the same bubbling spirit of determination to spread the tidings of something which may be of use to somebody else as it has been of use to him. Granted that spirit, and the ability, indigenous or cultivated, of appealing to the reader in the reader's own language, and the city man with all his schooling might even yet hope to be given as great a measure of success as "Little Joe." He has shown one way in which a community can be awakened to the benefits of cycles and to buy bicycles, and it may be added, to ride them. What he has done others should be able to do.

Motorcycles as Drawers of Water.

There appears to be no good reason why the owner of a motorcycle should consider its utility to be confined to the purpose of transportation and as a matter of fact, there comes to light every now and again an instance where the possibilities of the motor have been taken advantage of in more ways than one. The most recent case of this kind hails from the other side and is that of a rural German motorcyclist who with very little trouble imposed upon his machine the arduous task of drawing water. To anyone who has lived in the country and depended upon a hand pump as a means of filling a large tank there is no need to dwell on the saving of elbow grease brought about. The only alteration required on the machine itself was the addition of an extra belt pulley to transmit the power. The machine was jacked up on a firm stand directly over a countershaft; from the latter a second belt was taken to the driving wheel of the pump.

Advice About Lamp Lending.

A popular and well founded belief exists that to lend a book practically amounts to giving it; the number of books loaned is great; the number returned infinitesimal, says an exchange. In cycling circles this may be said to apply with equal force to the lamp, be it oil or acetylene. It is the simplest thing in the world to borrow a lamp from a cycling friend when benighted, but the return of that same lamp is a different matter, and cyclists, who are otherwise the souls of honor, calmly appropriate someone else's lamp with only a vague idea of returning it some day or other. The moral is, never lend your lamp; no, the wise may might go farther, and secure it to his bicycle by chain and padlock. True, it is hard to resist the plea of a friend that without a lamp he must walk home, but it is best to remain firm.

LAWSON LAID LOW BY LOBSTER

Former Champion had a Close Call and will not Be Able to Race Again for Many Months.

Iver Lawson will not ride Frank L. Kramer a series of races in Madison Square Garden during the week of the six-day race, no matter if Kramer is willing to accept the proposition that has been placed before him. This was made plain by a letter received this week, and which discloses a piece of live news that was not known in the East. Lawson has been hovering near the point of death for the past three weeks with a serious case of potomaine poisoning, resultant from eating fresh lobster. He was out for the first time last Friday and is a mere skeleton of his former self, having lost thirty-five pounds.

"Kramer need not worry now over any prospective match with me," writes Lawson, "as I will not be able to look at a bicycle again before Spring. I am going to take a long rest and then I will think about racing again. I was anxious to meet Kramer again as I think I can trim him, but it is all off now."

Even Lawson's enemies will be sorry to learn of the former world champion's illness, for even they are forced to admit that the Buffalo Swede can ride. Whether his illness will have any detrimental effect upon his future riding remains to be seen. It is regrettable that it has happened, for, as was stated in the *Bicycling World* some time ago, an earnest effort was being made to bring Lawson and Kramer together in a series of match races during six-day week. P. T. Powers had offered them a purse of \$1,500 to be divided as they saw fit. Lawson accepted the proposition and was training regularly and although Kramer had refused it was thought that he would agree to ride Lawson. It will be remembered that Kramer defeated Lawson at Salt Lake City in August, but the Swede's admirers hoped to see Lawson turn the tables in the Garden.

San Jose Hears a Large Story.

Frequently it is necessary to go far away from home to learn "news." According to a San Jose paper, a man from Boston, Mass., was recently in that city "in search of five riders from the Pacific coast to ride his machines in the 300 miles international race which is to be held in the spring on a 25 miles course just outside of the city of Chicago." According to the same paper he "engaged Johnny Baumgartner and Austin Holdsbury to ride his machines" which "will be equipped with four cylinder engines capable of a speed of 90 miles per hour." As the man in question has the reputation of being rather seriously inclined, it is not believed that he

would perpetrate a practical joke on the Californians, so it is possible the climate is responsible for it all. It is advisable, at any rate, before making the long journey that the San Jose young men who have been "engaged," insist on seeing at least a photograph of the "international trophy," as some men who last year won medals under the same auspices got them a year later—and then someone else paid for them; while still later, the same auspices gave "valuable first prizes" like bicycle chains and a "\$500 purse" which was never seen. If there is an "international race" brewing in Chicago, it is safe to say that the Californians know more about it than do those nearer the Windy City.

Douglas Does Stunts in Fine Style.

Roland Douglas, chairman of the F. A. M. Competition Committee, varied the monotony of watching the other fellows compete by assuming the role of competitor himself on Thanksgiving day. He played the part in the closed gymkhana games of the New York Motorcycle Club, held near Pelham Parkway, and he played at it so well that there was nothing left for the other fellows. Three stunts were run off and Douglas took all of them.

The distance of each was approximately one-quarter mile. Douglas won the slow race in 1:20, the potato race in 3:25½ and the spoon stunt in 33¾ seconds. In the latter, the competitors were required to carry an egg in a spoon held between their teeth and without spilling it. J. F. McLaughlin and D. Patterson, on double cylinder machines, spilled their eggs, which fortunately were newly laid. In the potato event, the murrhys were placed beside flower pots, 300 feet apart, the riders stopping at each pot and placing the potato therein, then turning and with a pointed stick they "speared" the spuds out of the pots. Patterson was second in the spud spearing, A. Kreuder, third, and M. E. Toepel, fourth. In the egg stunt, Toepel was second to Douglas, and Kreuder next in order. In a "match slow race" for two-cylinders, McLaughlin (N. S. U.) beat Patterson (Curtiss); time, 58¾.

Lewin is now the Leader.

Adolph Lewin now leads in the national century-mileage competition of the Century Road Club Association, according to the report of J. W. Johnston, chairman of the roads record committee. The chairman states that the leaders are so close together in the number of centuries and miles ridden that it will not pay any of them to fall behind. The standing of the riders is: 1, Adolph Lewin, Brooklyn; 2, J. F. Paulson, Brooklyn; 3, D. D. Adey, Brooklyn; 4, H. Gill, Bridgeport, Conn.; 5, H. Heldman, New York City; 6, M. S. Walters, New York City; 7, J. E. Fee, New York City; 8, J. A. Olson, Brooklyn; 9, George S. Sweet, New York City; 10, Ed. States, Brooklyn.

SIX-DAY SLATE IS COMPLETED

Sixteen Teams Will Line Up for the Long Grind—Motorcycle Match Races to be Run Daily.

Emile and Leon Georget (France).

Petit-Breton (France)-Carlo Vanoni (Italy).

Walter Rutt (Germany)-Floyd McFarland (San Jose, Cal.).

Arthur Vanderstuyft (Belgium)-Johan Stol (Holland).

Ernest A. Pye-A. J. Clark (Australia).

C. L. Hollister-W. E. Samuelson (Salt Lake City).

N. C. Hopper (Minneapolis)-Hardy K. Downing (San Jose).

E. F. Root (New York)-Joe Fogler (Brooklyn).

A. W. MacDonald-J. B. Coffey (Boston).

J. Frank Galvin (New Milford)-George Wiley (Syracuse).

John and Menus Bedell (Lynbrook, L. I.)

Floyd Krebs-Edward Rupprecht (Newark, N. J.).

R. J. Walther (Atlanta)-Hugh MacLean (Chelsea, Mass.).

Matt Downey-J. F. Moran (Boston).

Louis Mettling-Patrick Logan (Boston).

Urban MacDonald (New York City)-Charles Schlee (Newark, N. J.).

These sixteen teams, representing the cream of the long distance riders in the world, are those finally and officially

amphitheatre, New York, during the week December 10th-15th, inclusive. To attempt a forecast or a prophecy of an event where everything else being equal, one team has one-sixteenth of one chance to win, is difficult. It is even so where one team is far superior to the other fifteen, and doubly difficult where nearly all the contestants are evenly balanced. From which it would appear that the person who



WALTER RUTT, GERMANY

attempts to pick the winner from foregoing teams will have an uncertain job on his hands.

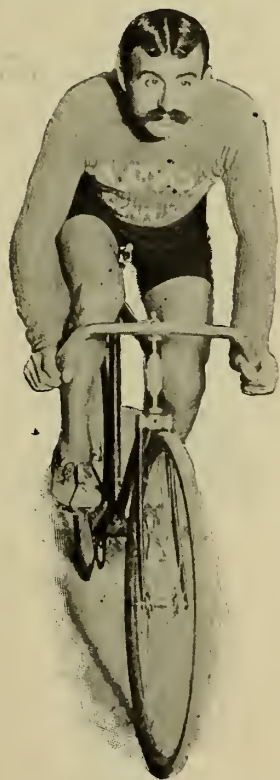
Unless the great unexpected happens this year's grind will be a fine one. For perhaps never before in the history of six-day bicycle races have the components—the riders—been so well matched or, taken as a whole, has so classy a bunch offered themselves for the gristmill.

The foreign aggregation is particularly promising and the men are expected to hold out better than did last year's "importations." The foreigners will reach New York this afternoon on La Lorraine when they will go to Vailsburg and put in a week of tuning up. By virtue of having won the only six-day bicycle race ever held in France—at Toulouse, last September—the Georget brothers, Emile and Leon, are the headliners that have been brought across the pond. Both are prominent long distance riders, the elder, Emile, having finished well up in all the French classics this past season. The Vanoni-Breton team looks very good, indeed. Vanoni appeared last year and started with Gougoltz as a partner, but the other was put out at 181 miles with a broken rib. Vanoni then paired up with Castro but the other was

not equally strong and the team had to withdraw after the swarthy Italian made one of the remarkable sprints of the race in an attempt to gain a lap. Breton rode in 1904 with Gougoltz, and the team finished sixth. Since that time Breton served a year in the French army and after his service began riding in the long distance road races with considerable success. Vanderstuyft and Stol appear to be as good as ever, judging by their performances the past season. What is regarded as a most formidable team is the international alliance that has been formed, Floyd McFarland and Walter Rutt, the champion of Germany. While McFarland is a plugger and Rutt a sprinter the combination is to be feared. Pye and Clarke, who come from Victoria, Australia, have never been in a contest such as this but they gave a good account of themselves on the Salt Lake City saucer this season.

The Salt Lake contingent will arrive in New York on Monday and they will join the foreigners at the Vailsburg camp. The riders from the west have been training under difficulties. For weeks the thermometer has registered around zero and last week the riders had to shovel ten inches of snow from the track before they could ride. But according to advices from Zion they are all in splendid condition and Samuelson and Hollister, in particular, are expected to give a good account of themselves.

Boston and thereabouts is sending a larger percentage of riders than any other section. MacLean, Coffey, MacDonald,



EMILE GEORGET, FRANCE



LEON GEORGET, FRANCE

selected to compete in this year's—the fourteenth annual—six-day bicycle race, to be held in the stifling Madison Square Garden

Moran, Logan, Mettling, Downey and Galvin all come from near the Hub. There is no doubt but that Hugh MacLean's

chances were considerably strengthened when he secured "Bobby" Walthour, the idol of the six-day racegoing public of two



J. B. COFFEY, BOSTON

years ago, as his mate. Although Walthour has not been riding as well this season as he did last, he and his partner are considered one of the "probabilities." It is predicted that the pets of the race will be young A. W. MacDonald and little Coffey. When Coffey rode as an amateur in the Garden he was dubbed the "second Jimmy Michael," and MacDonald made a splendid showing for a raw amateur last year. Matt Downey, the "hero" of the last grind, has been paired with "Piggy" Moran and the two may furnish surprises. Mettling has ridden well behind the motors on the other side and has set up several world's middle distance records. How he will stand the six days remains to be seen. Anyway, he has a good partner in Logan. George Wiley, the diminutive Syracuse messenger boy and Urban MacDonald, of New York City, will go in as amateurs, the former

two motorpaced races are on the bills besides a motorcycle match race. The five mile race will be between McFarland and



E. F. ROOT, NEW YORK CITY

MacLean and in the ten mile Walthour and Guignard, the world's hour record holder, will measure strides. The chances seem to favor Walthour as the Southerner is familiar with the ten lap Garden track, while Guignard's famous rides have been made on a big three lap outdoor track. Jake DeRosier and Fred Hoyt will ride two match races each day astride two new Indian motor bicycles and, if they let them out to the limit, there may be cause for



PAUL GUIGNARD, FRANCE, WORLD'S 1- AND 2-HOUR RECORD HOLDER

with Galvin, the New Milford "champion" and the latter with Charles Schlee, the Newark pursuit rider. The Bedells will also uphold the honor of Long Island and Lynbrook although they have not lived there in several years.

Entry blanks are now out for sprint and paced races on Saturday night, 8th inst., and disclose a most interesting card of events. All the six-day stars will compete in the ten mile open for a \$200 purse, and that this event will be "fast and furious" is guaranteed by the fact that \$25 will be given to the leader of the most laps and \$5 to the leader of each mile. The quarter-mile amateur championship will be run and this will prove an interesting struggle in view of the fact that both Wiley and MacDonald will want to win as it will be their last race as amateurs and the winning of it will tend to make them better favorites in the grind that is to follow. In addition a mile handicap for "simon pures" and



A. W. MACDONALD, BOSTON



JOE FOGLER, BROOKLYN

shudders. Root and Fogler won the race last year covering 2260.6 miles.

THIS WAS NO CREEPING IVY

But an Ivy so Swift that he Won Brower's
Race Hands Down—Weintz Captures
Time Honors.

"For Heaven's sake don't roast me just because my skin is black, because I think I have got a whiter heart than a good many of these white bicycle riders. I trained hard for this race and now I've won it and I think deservedly. It meant a whole lot to me, for by winning it I will get a chance to ride in the amateur races in the Garden and next summer I may go to Paris."

Thus spake William F. Ivy, colored, of Boston, one minute after he had crossed the line a winner in one of the hardest fought road races of the year—the Brower Wheelmen's 30-mile handicap on Thursday morning, Thanksgiving Day. There is no denying that Ivy won the race solely on his merits, and he finished first by a good margin after bucking against a head wind for fifteen miles to the finish, and with a final sprint uphill to the tape. But Ivy's victory was no less meritorious than the performance of Louis J. Weintz, the popular young road rider of the New York Athletic Club, who last week captured the "cork-pulling" championship of Long Island. Weintz won the first time prize and by his victory demonstrated that he is likely to become the best road rider in the country; he is one of the best now. Weintz did something that is not done every day in the week or that does not occur in every road race. About a mile from the finish he shook off Joe Eifler, himself no slouch, and maintaining a long sprint beat him out at the tape by sixteen seconds. Any rider that has ever traveled with the scratch bunch realizes what it means to get away from the crowd, and that Weintz is entitled to all the glory he got—and more.

Neither Wiley, the Syracuse crack; MacDonald nor Sherwood rode but the scratch bunch was composed of eight fast riders.

Many little things combined to make the Brower's race a memorable one. The course was from Bedford Rest, Brooklyn, to Valley Stream and return. The start was set for ten-thirty o'clock and promptly at that time the limit men, with 20 minutes handicap, were pushed off. The handicapping was well done, the other bunches starting at intervals of three minutes, those with seven minutes being the nearest to scratch. Although the crowd around the start was not too great for the mounted policemen, detailed to keep the course clear to handle, it numbered over a thousand and suggested a reunion of the "old boys," for there were lots of them on hand. A big part of the crowd was made up of Brooklyn small boys, disguised by false-faces, real make-ups, fathers' cast-offs or mothers' skirts, dressed in-carnival fashion for the

holiday and circulating among the crowd with their suppliant "Please, mister, what-che goin' t' give meh fer Thanksgivin'?" It was cold, unmercifully so, on Eastern Parkway and after the start there were few that did not partake of Mine Host "Charley" Walters' hospitality in the Bedford Rest club house.

It was easy going to Valley Stream, fifteen miles out, the turning point. After that—whew! Ask any one of the sixty-seven that survived that terrible head wind all the way in. Only ten riders fell by the



WILLIAM F. IVY

wayside, and some of them through accidents to their wheels. A few of the limit men reached West's, Valley Stream, first and just after turning, Ivy, Frommeyer, Kury and others of the 15-minute division overhauled and passed the hard-working and nearly winded leaders. From then on it was dig, grind, plug and all over again until the finish.

It lacked a few minutes of half-past twelve when Referee Adee collected his cohorts and moved from the comfortable inn to the breeze-swept parkway. The finish was just at the summit of the long gradual hill and it is bad enough to sprint up on a calm day, but a hundredfold worse on a day like Thursday.

Ivy, the negro, was the first rider to cross the tape and he finished way ahead of Frommeyer, the next one; after that the men crossed the tape singly and in bunches, until sixty-seven in all had been checked,

Ivy, the winner, hails from Boston, but lives in Atlantic City the greater part of the year. He is 27 years old and began riding in 1900. He stands 6 feet 2 inches in his stockings and weighs 169 pounds. He won the race on a Royal Reading bicycle, geared to 91 with 7-inch cranks and fitted with Palmer tires. He received a Tribune bicycle for winning the race. Although he is a "dark horse" in color, he really is of cream tint, rather than chocolate hued; he is not an unknown rider, having ridden several years ago at Vailsburg and Manhattan beach and he is one of the scratch men of Atlantic City.

Weintz beat out Joe Eifler for first time prize by over two blocks. As an incentive for just such a thing, A. G. Armstrong had offered an improved Armstrong-Palmer tire to the scratch rider that finished half a block ahead of the second scratch man. Of course, Weintz got the tire and in addition a Columbia bicycle for time prize and a Persons saddle for crossing the tape eleventh in position. He was the big winner of the day. He rode a Columbia bicycle, geared to 91 and shod with Palmer tires. Eifler got an Iver Johnson racer as second time prize.

The prizes were given out at the finish and there were almost enough for every rider that finished, there being 45 place and 7 time prizes. The summary follows:

Rider.	Club.	Hdp.	Net. Time.	H. M. S.
W. F. Ivy, Boston.....		:15	1:33:12	
C. Frommeyer, Cork Pullers...		:15	1:33:25	
A. Seldney, Yonkers.....		:12	1:32:44	
A. Harris, Roy Wheelmen.....		:12	1:32:45	
P. Curry, Cork Pullers.....		:15	1:36:07	
W. Cummings, Sprocket A. C....		:20	1:46:07	
J. Eubank, C. R. C. of A.....		:10	1:32:14	
H. Early, C. R. C. of A.....		:12	1:34:56	
H. Letia, New York.....		:20	1:42:52½	
P. Wollenschlager, C. R. C. A....		:18	1:41:09	
L. J. Weintz, N. Y. A. C.....	scratch		1:24:11	
H. Hinke, C. R. C. A.....		:10	1:34:12	
J. Eifler, C. R. C. A.....	scratch		1:25:00	
C. Schlosser, Brower.....		:07	1:32:11	
A. F. Rhodes, C. R. C. of A....		:07	1:33:06	
R. Hughes, Edgcombe W.....		:10	1:36:08	
C. Nerent, Roy Wheelmen.....		:07	1:33:10	
M. Rosenblum, Roy Wheelmen...		:18	1:44:19	
A. Klein, Brower.....		:18	1:44:30	
P. J. Baum, Tiger.....		:07	1:34:11	
R. B. Smith, Brooklyn.....		:15	1:42:19	
F. Blatz, Jr., C. R. C. of A....		:10	1:37:39	
E. Hipwell, Brooklyn.....		:18	1:45:18	
C. Richardson, Brower.....		:20	1:48:29	
M. S. Walters, C. R. C. A....		:15	1:43:34	

TIME PRIZE WINNERS:

L. J. Weintz, N. Y. A. C.....	scratch	1:24:11
J. Eifler, C. R. C. A.....	scratch	1:25:00
C. Schlosser, Brower W.....	:07	1:32:11
J. Eubank, C. R. C. of A.....	:10	1:32:14
A. Seldney, Yonkers.....	:12	1:32:44

Where Cyclists Pay a "Night Tax."

One of the peculiar laws in force in the great Northwest is the bicycle ordinance in vogue in Eugene, Oregon. There it costs the cyclist an annual tax to ride at night. Formerly the tax for the privilege of burning the "midnight oil" was eight dollars a year, but the officials considered this too exorbitant so they recently reduced the night tax to two dollars per annum.

"Motorcycles and How to Manage Them." Price, 50 cents. The Bicycling World Co., 154 Nassau Street, New York City.

“IN DEAR OLD GEORGIA”



THE RACYCLE SQUAD, Macon, Ga., Police Force

Police Commissioners all over the country are adopting

THE RACYCLE

through our Dealers

1st—Because the Improved RACYCLE Frame and Fork construction is practically indestructible.

2d—Because the RACYCLE Crank Hanger gives to their officers the quickest and easiest method of hot-footing law breakers.

RACYCLES cost money, but they are the cheapest in the end

There are still some places where we have no Agent and some Agencies that need a change. If you are a hustling, energetic Dealer, there may be an opening for you. Write us and see.

THE MIAMI CYCLE & MFG. CO , Middletown, Ohio

HENRY DE RUDDER, General Agent for Holland and Belgium, Ghent.

E. SANCHEZ RUIZ & CIA., General Agent for Mexico, Pueblo. R. SUMI & CO., General Agent for Japan, Osaka.

F. M. JONES, 1013 Ninth St., Sacramento, Calif., Sole Pacific Coast Representative.

TO SAN FRANCISCO BY EASY STAGES

By STANLEY BOWMAR.

To "see the country," Mr. Bowmar, a New Zealander visiting America, left Buffalo per motorcycle on July 12. He reached San Francisco Nov. 10, after a leisurely journey, which included a stay of two months in Denver. West of Denver he describes his trip as "pretty boisterous." He was lost for two days, was caught in several snow storms, ran out of gasoline in the Red Desert and had other memorable experiences. This is the first installment of his story—the journey from Buffalo to Chicago.

There was a flutter of excitement amongst my friends, and a look of pity—of sarcasm with some—on the faces of old motorcyclists, when I told them that I, who had never been astride a motorcycle, intended to purchase one and make a preliminary excursion from Buffalo to San Francisco. They warned me against tire and motor troubles galore, the difficulty of securing gasoline, impassable roads—or, rather, the lack of roads of any description—deserts, rattlesnakes, tornadoes, cyclones, and began to discuss which revolver would be most likely to serve me efficiently in the Wild West. I took it all in for future reference, and, as it proved, for amusement. Much of their advice, I fear, fell on very stony ground.

Being inexperienced, the problem that troubled me most was what machine to buy. Every motorcyclist praised the particular make he rode, usually a very expensive one, and, left me bewildered. After poring over catalogues and advertisements, and scheming to make a very slender purse do as much as one of big proportions, I decided on the Merkel—the "Marvelous Merkel," as the local agent described it, although I soon discovered that its "marvels" were very much of a mystery to him. Even this darling of my imagination, the first week or two, proved to be a most sullen, erratic, and contrary creature. I got it two weeks before I had arranged to start, and during that time, I found it absolutely necessary to set out for the office half an hour earlier than if I intended to walk there, and sometimes I arrived long before the fellow with the keys put in an appearance, sometimes an hour behind time.

Gradually the machine and I became on better terms, and by the time the day of starting came, we were quite friendly, and could, with reasonable assurance, rely on dodging faithfully along together for any number of miles. Monday, June 11, was the day on which I should have started out on the three thousand mile jaunt, but Sunday it rained, and I decided to postpone my start until Tuesday to give the roads an opportunity, which I trusted they would make the best of, to dry.

Tuesday, June 12, there was a fresh breeze blowing when I set out down Delavan avenue, and Westward Ho! Not knowing South Buffalo well, I somehow made a bad beginning and got considerably out of my way, but once the Lake Shore road was reached, there was no doubt as to the right track, and the riding with fair

though rough roads and the fresh East wind, was delightful. The motor was working excellently, beating a quick, rhythmical accompaniment to the wavelets that lapped the shore. As the smoke of Buffalo died away, a glorious free feeling came over me. It was good to know that for a few months at least I was not to be task-bound in a city. Although I had fully made up my mind to reach the Pacific on the wheel, there was no annoying time limit in which to make the long journey—I was at liberty to stop for pleasure or to work, just as whim or finances prompted.

As far west as Chicago, I had the official automobile road cards for a guide; and on these the noon stop for the first day's run was Fredonia, but I was there by eleven o'clock. Five o'clock saw me at Erie without having had any mishap, with the exception of the belt splice pulling out while mounting Gulph hill, 20 miles east of that city. The roads, as roads go in America, had been on the whole, good, patches of sand being infrequent. My cyclometer for this, the first day out, registered 101 miles.

I have an idea that some of the Erie folk, who had kept late hours the previous evening, anathematized me the next morning when I set out at 5:30. With the cut-out wide open I rode up the main street, the explosions resounding on the high buildings. Dogs barked furiously, and now and again a shade was pulled aside and there appeared at the window the head of the family scout.

Two miles past Fairview, the road leads through a pretty little wood-clad valley, of which I stopped to take a snapshot, but it was poor judgment, for it was impossible to start the motor up the next hill, consequently, I had to play the pushing donkey up the long, sandy incline. Soon the road became worse, and there were, also, stretches that had been newly formed.

With an appetite fit for seaman's "hard tack," I pulled up at Gerard for breakfast, and did my best (which was, I am sure, a praise-worthy attempt) to eat my fifty cents worth.

"You come from England, don't you?" queried one of the hotel guests, who was attracted either by my accent or the good motorcyclists' appetite I displayed at the table. He was guessing. Englishmen don't talk like New Zealanders, and it was necessary for me to reveal my identity. "We have heard a lot about New Zealand. What sort of a place is it?" he continued. "Live without working there, don't you—live on the Socialist plan?"

To be a travelling lecturer on a motorcycle, as I found I had to be, was quite enough, without launching out on New Zealand, so with an evasive and, I must admit, untruthful answer that we are all Henry Georgites out there, I excused myself and took my departure, the hotelkeeper shouting, just as the motor started, "You'll have good roads to Cleveland."

Good roads to Cleveland! All I can say is that some people have a mighty peculiar idea of what good roads are. With the exception of a freak mile or two near Conneaut, and the last fifteen miles to Cleveland, the sand was utterly wretched, making riding absolutely impossible for many miles, and headers very possible, indeed.

Two miles past Conneaut the motor, which for a reason that I could not discover, had been working erratically for several miles, decided to stop altogether, and it took me a good hour to locate that very common trouble—dead batteries. Pedal back to Conneaut—there was no alternative. The girl in the Electric Light Company's office seemed to have a very hazy idea of what dry batteries were, and laconically referred me to a hardware store down the street, where the required articles were not kept. Numerous inquiries brought me to Mr. Webb's repair shop, and there I secured, not exactly what I wanted, but batteries that gave the all-essential spark.

Another start—and a resolution to pick up the three hours lost, which I managed to do, running into Cleveland tired, dusty and oily, at six o'clock. All day, in fact all the way from Buffalo, the atmosphere of prosperity that surrounded the farms I had passed was a great surprise to me. Smiling vineyards were on either side of the road for miles out of Buffalo, and these gave place to cropping farms that appeared to be equally prosperous. The farmers' residences, often surrounded by beautiful lawns, and the out-buildings, were the most elaborate and substantial that I had seen anywhere. The absence of sheep farms in the Eastern States is very noticeable to a New Zealander. There seems to be something wanting in spring and early summer, unless one sees the lambs playing in the fields in the long evenings.

It was at Cleveland that I had my first experience with those arch-exaggerators of the world, the Yankee reporters. I had turned in early. After I had fallen asleep some time there came a big knocking at the door, sufficient (just thing of it!) to wake a cross-country, sun-baked cyclist.

"Sorry to trouble you, old man," came

a voice through the key-hole, "but I noticed you registered from New Zealand, and the night clerk said you intended to leave at daybreak in the morning."

I had not the heart to turn away a fellow so enterprising, and, though I did not see a copy of his paper next morning, I have no doubt, judging from later experiences, that he had in it one of those stories in which an ounce of fact is the salt for a ton of fiction.

Next morning an early start was frustrated by the motor refusing to budge, and, by the time I had located all the various troubles (a short circuit in the battery box, which had brought the occupants to ignominious and untimely end, half broken insulated wire, et cetera) it was eleven o'clock, and Norwalk, 50 miles west, was as far as I got that evening. Heavy thunder-clouds threatened to try their watering abilities at my expense in the early part of the afternoon, but having decided that a motorcyclist was an unworthy object, lazily rolled away eastward. Much of this afternoon was spent in sand-ploughing, and riding ticklishly—now on narrow side paths, the over-hanging trees in places making determined attempts to disfigure my physiognomy, and again in the long grass where hidden sticks and open ditches threatened to bring my tour to a sudden and inglorious end.

From Toledo, where I said good-bye to the lakes, whose glittering surface and cool breezes had enlivened many a mile, to Stryker, both the country and the roads were delightful.

As a rule the farmers and others on the road are willing to extend to the motorcyclist the same courtesy that they expect him to show toward them. Often, however, one comes across people who are much more afraid that their horses will be frightened than they really are. This day I met an old gentleman of this class. He heard me coming and gave me a signal to stop, and, of course, I stopped, thinking that he intended to turn into a nearby gate. Instead, he kept right on, dodging contentedly along at a pace that an Irish donkey would be ashamed of. With the throttle closed it was impossible to ride as slow as his pace. After a mile or more of tailing him up, I seized the opportunity to take a side path. As soon as he realized that I was going to pass, he became excited, and instead of gripping the reins lower down to tighten them he simply drew back his hands; and when I skipped by he cut an amusing figure, his head shaking in a most threatening manner at me, and his hands past the level of his ears.

Stryker to Benton, Ind., was a short, though somewhat eventful run for the following day, Saturday. At night it rained, and I was not wise enough to see that the best plan would be to wait until midday for the roads to dry. It was one of those beautiful, mid-summer mornings that fol-

low a heavy night rain, and I was out before the smoke was rising from the chimneys of the farm houses. The motor was working perfectly, and, as far as Bryan, it ploughed through the slough without mishap. Here, however, just to remind me that she can be capricious, good luck left me. While descending a hill (which I need not have gone down at all, if I had kept on the right road) the wheel skidded, and I went gyrating through space, landing on a wet, slimy embankment, down which I slid with the ease and speed, though not the grace, of a tobogganist. Fortunately the machine was content to balance on the edge of the embankment, but the fall had broken the gasoline pipe, and badly bent the pedal crank. The leaky pipe it was possible to temporarily fix with tire tape and adhesive belt dressing, and I decided to try to make South Bend with the pedal out of commission.

At Bryan I heard of three others ahead of me who were doing the transcontinental trip—one walking on a wager, the other two on horseback. The riders were, I was told, "Doing it for the fun and glory of the thing." How much "fun and glory" they found, I am not in a position to say, for I have never since heard of them.

From Waterloo I raced up and down dale in record-breaking style, hugging the railway for some miles, and then dashing through little woods, whose cool shade was doubly welcome in the intense heat of the afternoon. Six miles from Benton, just in the cool of evening when motorcycling is so delightful, the broken gasoline pipe gave out completely, and I realized my folly in not having it soldered at Waterloo. As a penalty, I had to walk and pedal into the little village. As I have already hinted, the cross-country cyclist is called upon at least twenty times a day to deliver a free explanatory lecture on the mysteries of the motor, but one that I gave to a farmer near Benton was amply paid for by an extremely welcome supper, which did much to make my weary six-mile trudge bearable, if not pleasant.

Benton does not boast a tinsmith, but the people there treated me so finely that I would like to eulogise "their magnificent and picturesque cathedrals, their art galleries, and their beautiful parks," in the customary way of the tourist. It was dark when I arrived, which is the reason, no doubt, that I did not notice these sights of the city. The blacksmith I found sitting in front of the barber's shop, and without a moment's hesitation he crossed over the street to his forge and prepared to do the necessary work, so that I should not be delayed in the morning. The small job, which under ordinary circumstances would have taken only a few minutes, occupied an hour, and I was asked to pay only fifteen cents.

Near Elkhart I came up with the young fellow, Clarence Archer, who I had heard

of at Bryan as being on a wager-walk to San Francisco. It was five o'clock in the evening. Motor troubles and a leaky gasoline pipe had delayed me, and besides I had wasted a lot of time in beautiful little Goshen, whose wide, shady streets and romantic situation on the Elkhart river, tempted me to stay there over night, in a vain endeavor to entice a devout blacksmith to break the Sabbath by mending my pedal.

Archer, a slim, wiry youth of eighteen years of age, already had been trudging along for thirty days, depending altogether on the hospitality of the farmers and others, the conditions of his walk being that he started from Williamsport, Pa., without a cent, did not work or sell anything on commission en route, and completed his journey in one hundred and eighty days. So far, he told me, he had managed fairly well—"Some days five meals, some days two."

After supper together in Elkhart, he suggested that, as I was having trouble with the motor, which made starting difficult with the broken pedal, we walk on together to South Bend, fifteen miles. We set out as the evening church bells were ringing, their sweet notes traveling far over the beautiful surrounding country.

When one asks directions as to roads in the United States, he is invariably told to turn, not to the right or left, but to the North, South, East or West, as the case may be, which is just about as perplexing to the stranger as the Irishman's "Go sthrait on, sir." If he is in a strange city, or if it is dark or cloudy, how is one to know the points of the compass? Even if Old Sol is visible, one hasn't always the time to sit down on the roadside for an hour to watch the old gentleman to ascertain the direction in which he is traveling. Confusion on the technical point as to which was North and which West, caused Archer and me to take the wrong turn. In this way we added four miles to our walk, which, in any case, was rather long to be called a pleasant constitutional.

We had calculated on reaching South Bend by midnight, but the sparrows were twittering in the trees, when we reached that then quiet, but usually busy city. Three hours' sleep was all we had that night, or, rather, that morning. While the blacksmith was welding the pedal crank, I set to work on the motor, and at ten o'clock, said good-bye to my pedestrian friend, whom, although I have inquired at the newspaper offices in various western towns, I have not since heard of, and then made a fairly fast run to Wellsboro, over 30 miles, in one hour, forty-five minutes. At this little railway junction, I had a pleasant time with relatives and friends until the following Thursday afternoon, which I skipped over the last fifty miles to dirty, bustling Chicago.

STANLEY BOWMAR.

GOOD GOING AT BALTIMORE

Motorcycle Racing Proved so Superior that Motor Cars May be Dropped—Thomas Takes Feature Event.

Witnessed by a large crowd the motorcycle races at Electric Park on Thanksgiving Day were run off without a hitch. "Chic" Thomas, the local so-called champion, was the bright star of the meet, winning the feature event on the program, the unlimited pursuit, doing some hard riding and defeating a field of six, among whom was Edward Mangold, who styles himself the District of Columbia champion.

In this event Thomas, together with John Kuhl and Nelson Johnson, started from scratch, with Mangold on the eighth pole, Herbert Webber on the quarter and Howard Gill on the three-eighths. Thomas started off like a tornado and after four miles of fast riding put the Washington star out. Gill in the meantime had passed Webber and then ensued a nip and tuck fight between Thomas and Gill. After six miles of riding Thomas finally overhauled and passed his fellow townsman.

The three mile handicap proved one of the best handicap races ever ridden on the local track. Thomas and Mangold started from the honor mark, W. S. Fisher from 20 seconds, Gill at 30 seconds and Johnson at 40 seconds. Thomas and Mangold had a gruelling contest for two miles, when "Chic" got his Indian tuned up and then started on the warpath for the scalp of the Mash-Mutz, ridden by Gill. Thomas went after him like a whirlwind and gained wonderfully on the homestretch. In two feet further to go Thomas would have won as he was lapping Gill's rear wheel as they crossed the tape.

Honors in the three mile novice were taken by W. S. Fisher's Indian, Herbert Webber crossing second. In a mile match race between Thomas on his motorcycle and Gill in a racing automobile, the latter won in 1:40¾.

The motorcycle events so greatly out-classed the automobile races that Manager French states that in the future he will "cut out" automobiles of he can secure good out-of-town riders. The summaries.

Three mile novice—Won by W. S. Fisher, 2¼ horsepower Indian; second, Herbert Webber; third, Howard W. Gill, 3 horsepower Marsh-Metz. Time, 5:30. Also ran—Nelson Johnson and Harry Fisher.

Three mile handicap—Won by Howard W. Gill (0:30); second, "Chic" Thomas, 2¼ horsepower Indian (scratch); third, Edward Mangold, 2¼ horsepower Indian (scratch). Time, not given.

One mile special match—Won by Howard Gill, 10 horsepower Stanley automobile; second, "Chic" Thomas, 2¼ horsepower Indian. Time, 1:40¾.

Unlimited pursuit—Won by "Chic" Thomas, 2½ horsepower Indian; second, Howard W. Gill, 3 horsepower Marsh-Metz; third, Edward Mangold, 2¼ horsepower Indian. Distance, 6½ miles.

Bay Views Begin Home Trainer Sport.

The Bay View Wheelmen, of Newark, opened the home trainer season at their club house on South Sixth street, on Wednesday night of last week, and the races provided some exciting sport. The feature event was a mile match race between Floyd Krebs and Edward Rupprecht, the two professionals who will represent the Newark organization in the six-day race. Contrary to expectations, Rupprecht beat "Herr" Krebs, riding the imaginary distance in 59 seconds. J. T. Halligan, another professional member of the Bay Views, gave a ten mile exhibition in 10:50, covering the second mile in 56 seconds, a record for the rollers. Charles Anderson defeated "Mike" Ferrari in a two mile race, his time being 2:05, and Frank Montville won from Bob Stroller in their three mile match. The time was 3:06. After the races the prizes were distributed to the winners in the club's out-door competition held during the past season.

Brown Wins Twice Indoors.

Three bicycle races enlivened a long program at the twenty-ninth games of the Twenty-third regiment at its armory in Brooklyn on Saturday night last, 24th ult. The one mile novice was won handily by L. R. Reynolds, Fred R. Lexow finishing second, and C. W. Butler third. Time, 2:38¾. H. R. Brown, from 70 yards, got the one mile handicap although if there had been another lap to go Fred Warner, the scratch man, would have taken the prize, as he finished close for second. J. W. Dalston, 10 yards, was third. Time, 2:25. Brown got 110 yards in the two mile and again finished in front, Warner from scratch being the runner up. Dalston, with 130 yards, was third. Time, 4:54.

Here's a Genuine Centurian.

Thomas W. Davis, America's "grand old cyclist," who in his eighties is reeling off more than 5,000 miles per year, is made to appear quite a youth by comparison with Thomas Enstone, a farmer of Sandhurst, Gloucester, England. Mr. Enstone has reached the ripe age of 103 years and is said to ride a tricycle regularly. Mr. Davis, as becomes his youthfulness, rides a bicycle.

Denver Sees a Track Coming.

Denver will undoubtedly have a new bicycle saucer next season as the negotiations of the promoters of the scheme are meeting with success, in the matter of subscriptions. It is proposed to locate the bowl in the Tuilleries Gardens, a pleasure resort that is within easy access from all parts of the city.

ADEE AGAIN AT THE HEAD

Veteran is Renominated for Presidency of Century Association—Official Slate for 1907 Shows Few Changes.

It goes without saying that Dan M. Adee, of New York City and Metropolitan, L. I., who has taken up the duties of president of the National Cycling Association, has been nominated for a third term as president of the Century Road Club Association. This was disclosed by the report of Charles P. Staubach, chairman of the slate making Committee on Legislation, which was made public this week. No new names have been proposed for the national officers nor is it probable that there will be. The election will be decided by a mail vote which closes at 10 p. m. on December 18th. The nominations for the various offices follow:

National:

For President—Daniel M. Adee.
For First Vice-president—Paul Thomas.
For Second Vice-president—Colonel Myron W. Lyman.
For Secretary—E. Lee Ferguson.
For Treasurer—Herman F. Dreyer.
Eastern Division:
For Centurion—Hugo Von Rodeck.
For Secretary—Mrs. Hugo Von Rodeck.
For Treasurer—John W. Gull.
For Captain—Robert Friebe.
For Directors—William G. Levy, Peter Wollenschlager, Hubert T. Mayo, Frederick Bauldauf and John B. Hawkins.
Long Island Division:
For Centurion—J. F. Paulson.
For Secretary—William F. Jacobs.
For Treasurer—Fred C. Graf.
For Captain—Adolph Lewin.
For Directors—Emil Greenbaum, Anton B. Eifler, Augustus F. Dueter, Gustave Dueter, Joseph M. Eifler, Frank W. Eifler, and Herman Kampe.

For the "Birthday Dinner."

Annually the Century Road Club gives what is styled its "birthday" dinner, and the custom will be adhered to this year. The date is December 11th, the date of the birth of the organization, and this year it will take place at Terrace Gardens, in Fifty-eighth street, New York City. Instead of having the guests seated at sundry tables, Chairman Paul Thomas states that everybody will be seated at one long T-shaped "board," which feature alone will doubtless make it more family-like.

The Broadways of Baltimore.

The renewal of cycling interest in Baltimore has caused the birth of another right sort of club. The Broadway Wheelmen, with the object of promoting purely pleasure runs, has been formed with Arthur S. Waugh as captain, Martin Berger, lieutenant, and Edward Leary, color bearer.

Iver Johnson Truss Frame Bicycle

The 1907 Models represent our best effort in cycle building. They reflect in the highest degree our twenty-four years' experience in manufacturing standard high-grade Bicycles. Models, Prices and Catalogue now ready.



The IVER JOHNSON Truss Frame gives the high-grade bicycle individuality. It makes the strongest bicycle frame built. It constitutes the strongest selling feature to be found in a bicycle. It is practical, strong, distinctive and scientific.

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Gendron Bicycles

are the matured product of twenty years of continuous improvement and painstaking workmanship. Their worth is real. Their general appearance, style and finish is unexcelled. In perfection of bearings they are unapproached.

Apply for their sale now before your neighbor gets it.

1907 CATALOGUE NOW READY

GENDRON WHEEL COMPANY, = = Toledo, Ohio

TWO TYPES OF MOTORCYCLIST

Both are of the Won't-Let-Well-Enough-Alone Variety—Examples of the Distress they Cause.

Probably the greatest stitch in the side of the manufacturer of motorcycles is the man who has pet theories of his own and proceeds to work them out on his machine at the expense of both the latter and its maker. This and the individual who always has a hankering to "see the wheels go round," prove a fruitful source of trouble for the maker. These two varieties, of course, are in addition to that great number who are always having imaginary troubles that must be poured into the manufacturer's ear, but these two are far and away the worst, for the theorizer does not get very far along with his experiments before he realizes that he has been traveling the wrong road and has to put it up to the maker of the machine to give him a new start, while the man who wants to investigate the "innards" of his mount, some how or other never seems to be able to put things back the way he found them originally. These types of motorcyclist are usually close kin to the chap who disregards the advice given by the manufacturers, particularly concerning the proper oils to use and the best periods at which to lubricate the motor.

As typical instances of this there may be cited the following examples one of each of which will be found to come within the above named classes. Not long ago the Hendee Mfg. Co. received at their factory at Springfield, Mass., a machine that had been sent in by its owner for repairs. It would be difficult to exaggerate its condition in describing it; the valves, the piston, connecting rod, crankcase and muffler were thickly coated with a rubber-like compound that adhered to every square inch of metal surface of the interior of the motor with a tenacity that did not promise an easy job in removing it. In short, the entire mechanism of the motorcycle was literally gummed up from an eighth to a quarter of an inch thick with what appeared to have been originally a semi-liquid rubber solution baked hard on it.

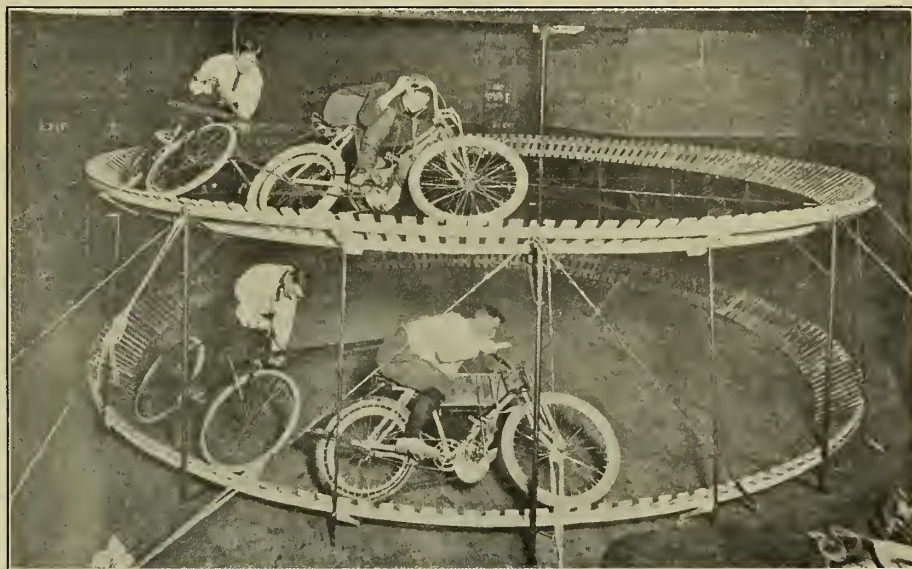
Naturally nothing even approaching such a state of affairs had even come to the notice of anyone in the factory and the owner of the machine was requested to enlighten them as to what had been done to bring it in such a condition. He denied having done anything whatever to the machine, but upon being admonished to "think hard again" and see if he could not remember having done something out of the way to it, backed up with an ultimatum to the effect that nothing whatever would be done

in the way of repairs until the information was forthcoming; he replied that he had used linseed oil as a lubricant.

There are oils and oils for lubricating but linseed oil is not one of them. Whether it is better to resort to anything that can be had rather than walk or ship the machine back is a question that must be answered occasionally by quite a few motorcyclists who find that their supply of oil has vanished and cannot be replaced. Usually castor and sweet oil have been the

the factory and on Sunday he had brought it back to the agent and told him that he could not make it run at all. The agent happened to be new at the business and he could not offer much encouragement so the factory was wired and sent a man the next day. It was simply the old, old story of "I took it apart and couldn't get it together again right," and as is almost invariably the case the curious one was firm in his denials of having tampered with the machine in any way. It had simply gone

"PACED RACES" ON "TWO-STORY TRACKS"



As a variation probably intended to keep alive the now commonplace feat of riding a motorcycle at high speed around a diminutive but sharply banked track in view of an audience, the "stunt" pictured by the accompanying photograph is now holding the boards in London music halls and vaudeville houses. As will be seen, it consists of two tracks instead of one as is usually employed and likewise in place of being almost basket like in size as has generally been the case, these tracks are far narrower than the average rider would care to negotiate on terra firma. As a further spice of novelty each motorcyclist is towing around after him a cyclist, the machines being attached in each instance by heavy leather bridles. A V-shaped arrangement

is bolted at its point to the front forks of the bicycle by placing it under the axle nuts of the wheel. To the outer end of each arm a heavy leather strap is attached and lead to a point at the seat post of the motor bicycle. It is easy to see that the lower pair on the floor level are in little danger of coming to harm, whether from excessive speed, centrifugal force causes them to strike the supporting stanchions or from the opposite cause they slide off the track to the floor, but with those above the case is quite different. Going either too slowly or too rapidly will be apt to cause them to leave the track one side or the other and there is nothing to prevent it but their ability to keep going. How the upper pair get up sufficient speed does not appear.

favorites but as substitutes they have so many disadvantages that few are tempted to try them a second time. But anyone with even the most elementary knowledge of the constituency of linseed oil would never dream of putting it to this use.

The other instance is that of the individual with the hankering to see the wheels go round and is told by Edward Buffum, sales manager of the Consolidated Mfg. Co., Toledo, Ohio. The machine had been delivered on Friday to a purchaser who lived in an agency district not far from

wrong, that was all. He finally admitted that he had taken it to pieces, after the man from the factory discovered that the contact breaker had been taken off and put back in such a position that the explosion was timed to occur at the downward end of the piston's stroke instead of the reverse. And the story was without so much as an extenuating circumstance for the tinkering that resulted in putting the machine out of commission temporarily had not been undertaken to correct any derangement, but merely from idle curiosity.

YOU CAN'T PAY MORE

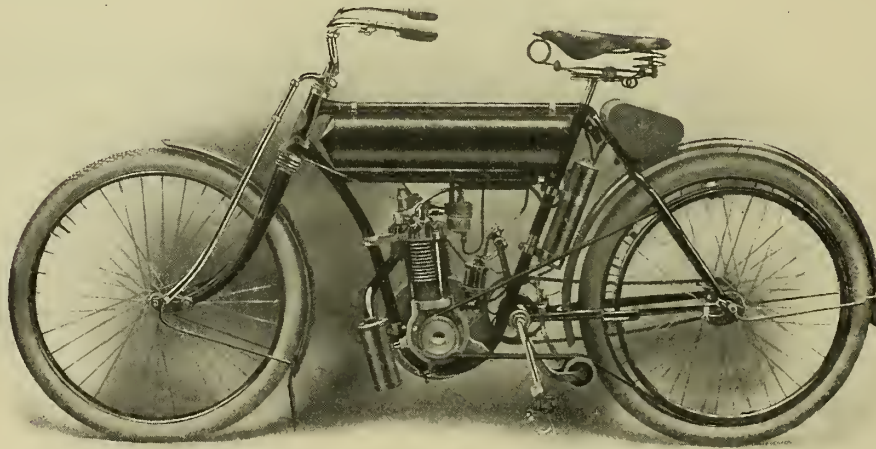
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YOU CAN'T PAY LESS

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The "One Best Buy" of the 1906 Season
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GRAND CENTRAL PALACE SHOW, NEW YORK, DECEMBER 1-8.

More power; more speed; improved grip control; new tank; noiseless muffler and a cushion fork that is a real cushion.

Two out of three Yales finished the strenuous F. A. M. endurance contest; three out of four made perfect scores in the Chicago endurance test.

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WHEN THEY MET THE LORD-PROVOST

He Displayed Interest in the Globe-Girdlers, asked them Questions and Took their Signatures.

"Another prominent man has learned the meaning of the yellow sprocket wheel upon our sweaters, and this time it is no less a personage than the Honorable William Bilsland, Lord-Provost of Glasgow, who inquired concerning it and who was much interested," write Lester R. Creutz and George E. Holt, the two members of the Roy Wheelmen of New York City, who are touring the world on bicycles, to that organization. "It may be of interest to other American bicyclists to know of the manner in which this great mayor, the friend of King Edward, received us.

"We called at the city chambers one morning wearing our Roy Wheelmen sweater and L. A. W. insignia, and were there presented by a mutual friend to the Honorable William's secretary. This gentleman informed us that the Lord-Provost was engaged, but that he would be pleased to see us in a short time; and in the meantime we might like to view the building—which, by the way, is the most magnificent city hall we have ever seen. We were turned over to a guide who escorted us through the principal rooms of the building which, complete, cost about \$3,000,000. We spent half an hour climbing richly carved marble staircases, passing along hallways whose marble walls were worth a king's ransom, through rooms furnished in mahogany or walnut or satinwood and whose ceilings were lacquered in blue enamel and 22-carat gold and upon whose walls hung pictures, some worth \$17,000 each.

"It was then with some doubt in our minds, that we followed the secretary into the Hon. William's office—but in a flash our fears vanished, for we were smiling and shaking hands with a short, happy looking man with twinkling eyes, gray beard and slightly bald—William Bilsland, Lord-Provost of Glasgow.

"So you are making a bicycle tour of the world, eh?" remarked the Provost. "My, but that's really a remarkable trip! A remarkable trip! And how long do you think it will take you? Three years? Ah, there's America for you! And where do you go—but take seats, gentlemen, be seated—where do you go from here? To Ireland, oh, yes; and then—?"

"We outlined our itinerary while the friend of the King literally sat with his mouth open.

"Well, well, well! That is a great trip. And, may I ask, what that insignia is?" said he, pointing at our sweaters. We explained. While we were doing so the secretary entered and glanced at the Lord-Provost.

"Tell them to wait," he said. Then he resumed his questioning. At last, not wishing to remain too long, although we were immensely enjoying the remarks of the active, keen-eyed little man, we rose.

"Now," said he, "if there is anything I can do for you I will be only too glad to do it,—if you want information on our municipal government, letters of any sort—"

"Now the Hon. William, be it known, is the only baker in the Kingdom who is a



NEW YORK BRANCH: 214-216 WEST 47TH ST.

lord-provost, and we thought we would like to see how such a man makes bread. We told him so. He rang a bell. A secretary entered.

"Jake, a letter please," said the Lord-Provost, and he dictated a letter to the manager of his big baking establishment. In a moment the letter was ready; he signed it and handed it to us with a bow.

"Now I want you to do something for me," he said. "I want you to write your names in my visitor's book," and he opened a leather-bound volume, handed a pen to us with one hand and placed a chair with the other. As we set the pen to the paper we stopped, for the following name had caught our attention:

"Edward R. and I."

"It wasn't much, but it meant that Edward, VII, by the Grace of God, of Great Britain and Ireland, and of the Dominions of the Sea, King, Defender of the Faith, Emperor of India, had written his name in the little morocco-covered book that lay before us. But we signed our names and the date, and the title of the western metropolis where we were born—and our names were not very far from that of a man who is now quite well known abroad and who is earning a name at home—William Jennings Bryan."

SUGAR NOTCH "CHAMPEEN" COMING

He's Pete Shudleskie but—B'gosh—he has Six-Day Aspirations and his Friends are Raising a Fund.

Sugar Notch—it's in Pennsylvania but it cannot be discovered on the map except under a magnifying glass—has made a bid for fame by entering its "champeen" in the annual New York six-day bicycle race. At least the Sugar Notch correspondent of the Wilkes-Barre News says so, and he ought to know. P. T. Powers says he never heard of Sugar Notch, or Peter Shudleskie, the village's pride and joy, but that does not matter, "Petie" and the rest of his name are going to come to New York. Being a worthy young man, though poor, and gifted with a line of gilt-edged heart to heart talk, Peter's Sugar Notch friends are going to see that he gets a chance to realize the crowning desire of his life—to become six-day champion bicycle rider of the world instead of "champeen" of Sugar Notch, Pa. If Peter, when he lands in New York City, will only make himself known to the "boys" it is not doubted but that they will take "good care" of him. It is even possible that some of them might be induced to loan him a real racing bicycle and a pretty pink suit. However, here is what the Sugar Notch correspondent says:

"Peter Shudleskie, the well known bicycle rider of this place, is busy training for the six-day races in Madison Square Garden, New York City, in December. Mr. Shudleskie is the winner of many long distance races and is well fit physically to stand the strain of riding the six days. He will be accompanied in the race by Johnny Moran, of Buffalo, N. Y., who has gained a reputation in the bicycle world. Mr. Moran will arrive in Scranton in a few days and both will train together daily in the above city. There is much enthusiasm shown by the young men of this town and all you can hear on the streets every evening is bicycle racing. That the expense will be large and as Mr. Shudleskie being too poor, the young men have gotten together and have decided to hold a drawing for a \$50 bicycle to take place in Morris' hall on Thursday evening, December 6th. The amount secured at this affair will be used to help pay his expenses for training, attendants and other things while on the race track. Everybody that possibly can should purchase one of those tickets and help the young man in his ambition to enter the races. The price of each ticket will be only 25 cents."

"The A B C of Electricity" will aid you in understanding many things about motors that may now seem hard of understanding. Price, 50 cents. The Bicycling World Co., 154 Nassau Street, New York City. ***



Motorcycle for 1907

TWO MODELS

Single Cylinder, $2\frac{1}{2}$ H. P., Weight, 125 lbs., Speed, 45 miles per hour, Price, \$200

Double Cylinder, 5 H. P., Weight, 150 lbs., Speed over 60 miles per hour, Price, \$275

1907 IMPROVEMENTS

Increased power, reinforced fuel tanks, unbreakable handle bars, perfected valve-lifting mechanism, 30 degree valve, hardened steel pulley. Transmission can't be improved.

CURTISS EXTRA'S

Curtiss Flexible Sidecar, combined luggage carrier and stand, spring truss forks, tandem attachment.

APPLY FOR THE AGENCY WITHOUT DELAY.

Exhibit, section G, gallery, Grand Central Palace, New York, Dec. 1 to 8

G. H. CURTISS MFG. CO., Hammondsport, N. Y.

Whether applied to

BICYCLES OR MOTORCYCLES

PERSONS

SADDLES

Add that style and distinction that comes of well-bred quality; and the comfort is all there, too.

OUR LINE IS VARIED; OUR CATALOGUE INTERESTING

Persons Mfg. Company, Worcester, Mass.

HOW IT WAS DONE IN TARBORO

Wideawake Dealer there Points out How
he Promoted Cycling and Increased
his Sales 600 per cent.

How to induce people to ride bicycles is a problem that nine dealers out of every ten would be glad to have solved for them, once and for all. It is a wide field and no favor, and the very breadth of opportunity offered by the blank advertising space contracted for, frequently seems to lead astray the very man who has the most profitable opportunity to make a telling stroke. Safe to say, the man who has a message to give, whose heart is in his work for the sake of the work quite as much as for the profit it may bring him, is more likely to succeed than he whose sole object is to attract custom which represents to him merely a certain percentage of the gross business it brings. A telling illustration of the power of the heart to heart type of advertising when issued as an outpouring of genuine feeling, is instanced in the results obtained by Joseph S. Peele—"Little Joe, the Advertiser," as he is known locally—of Tarboro, N. C. His is one of the cases where an individual reaping great benefit from the use of the bicycle has set about telling others of it and striving to gain for them the same sort of results. Hence the labor has been largely one of love, in its inspiration, and the results, though bringing in a commercial profit to the originator, have been in reality a secondary issue to his chief end, of preaching the gospel of the bicycle at every opportunity.

Something over nine years ago, this energetic worker entered the bicycle business for himself, then but a boy, and in the face of two well-stocked rivals, began his highly original career. From the very beginning he placed the greatest faith in the efficacy of advertising, and for the first two years spent all the profits he gained in extending the spread of his "message." More than this, having spent all the money he could lay his hands upon in this way, he applied to others for help, and strained every nerve in the interest of publicity of the right sort. In his success, he attributes not a little credit to the makers who furnished him with literature of one sort and another, all of which he made good use of, and with telling results.

Finally at the end of almost a decade, Peele, who is not yet twenty-five years old, finds himself in the enviable position of the man who has the field entirely to himself. Both of his rivals went out of business when the reaction following the "boom" set in, and left him to follow his own devices. As a result, where a few years ago it was a hard matter to sell fifteen bicycles in the course of a year, as he says,

now he can dispose of one hundred with no more effort. There can be no doubt that the almost extraordinary success which has been granted him has resulted from the earnest tone of his advertising, which has been based on the sound doctrine of the benefits of cycle riding, with his own experiences constantly held in the background as a sub-dominant note to the theme. That portion of his story which concerns his experiences with the bicycle, is best told in the language of one of his early advertisements, in itself thoroughly characteristic at once of the man and his methods:

Little Joe, born with asthma, suffered more than words can tell, prayed again and again that he might die, and end the terrible suffering that he was going through. His bed was a rocking chair for more than twelve years. Cured at last after his father had spent hundreds of dollars for just a little relief.

Asthma is a lung disease and Little Joe is prepared to prove that the bicycle caused him to get the fine fresh air that opened up and strengthened his weak lungs, thereby affecting a cure.

All medical and learned men will tell you that plenty of fresh air inhaled deep into the lungs is the greatest strength builder known to modern science.

Everybody needs fresh air—the more you get the better you feel.

The bicycle will help you to put this fresh air where it will do the most good.

The key to strong lungs is a bicycle. Little Joe has made the price and terms so that everybody can get one.

We have a few \$50 Racycles; our price, \$37.50; \$9 cash, balance 75 cents per week or \$10 down and 50 cents per week. Little Joe can prove what he says and would be glad to do so at any time—Little Joe.

But one such experience cannot be played upon indefinitely, nor will the unsupported testimonial of one person carry weight when reiterated over and over again. The theme was recognized as being a profitable one, however, and the most natural step in enlarging upon it was to turn to the medical profession. This was done, and accordingly a symposium of the testimony of every doctor in the town made up and presented over their respective signatures. The argument obtained in this way, instead of being considered sufficient in itself, was clinched by a half column of double measure "Peeleisms," in which the home trade idea was developed in a most striking manner. The arraignment of this somewhat voluminous material was in characteristic fashion crowded into double column space occupying about half a column in the local paper. The heading was: "No matter! Well, No Matter! No Matter anyway! What the doctors of Tarboro say about Bicycle Riding." And the method of display was as original as the matter itself, and not unlike the style developed by the dealers in proprietary medicines.

"Anything that will keep men and women out of doors is a good investment. Therefore, the bicycle has been and is a great thing for the human family."—L. E. Norfleet, M. D.

"Bicycle riding every day and open windows every night, when combined with regular habits, affords the best guarantee of a long life."—L. L. Stanton, M. D.

"The proper use of the bicycle is an admirable way of getting the fresh air, which the out-of-door treatment of tuberculosis is demonstrating to be so valuable to our bodies."—W. J. Thigpen, M. D.

"As for cycling for women, too much cannot be said in its favor. It develops the chest, expands the lungs, strengthens the limbs."—S. N. Harrell, M. D.

"There can be no doubt but that the bicycle is an excellent method of outdoor exercise as a means of both keeping and restoring health. It is invigorating and healthful."—I. D. Jenkins, M. D., L. E. Norfleet, M. D.

"I am an ardent advocate of out-door exercise, and consequently favor every movement on behalf of good roads."—J. M. Baker, M. D.

A bicycle is a very good thing for a boy or girl going to school, for this reason, if no other: They will ride it before going to school, and the exercise obtained in this way keeps their bodies warm the rest of the day, and they are not so anxious to sit next to a red-hot stove, without this exercise they shiver in their seats all day. In the winter when the cold, cold wind begins to blow, and you feel so cold you think its going to snow, ride your bicycle thirty minutes or so, and you'll feel the cold no more. "Little Ethel and her wheel. Her muscles were strong and roses came to her cheeks. But there came a lull in bicycling and the roses faded away again. Then, at seventeen, Ethel joined the Ardsley Cycling Club, and then these roses all came back again."

Do unto others as you would have them do unto you.

Suppose you had a little bicycle store, would you like for the people to order from Chicago or buy at home? There are a good many people in Tarboro who seem to be under the impression that they can get goods in Chicago cheaper than they can in Tarboro. Do you think we would be foolish enough to buy 300 pair of pedals at one time and pay the same price you pay for one pair?

A certain gentleman came into our place the other day and says: "Mr. Peele, I want to buy a foot pump, a bell, a lamp and wrench." I said to him: "Well, I have the goods and would like to sell you what you need." He said he could order them cheaper than he could get them from me. I told him to get out his catalogue and we would compare prices and goods. He did so, and I sold him the goods, and gave him the best grade at the prices he was going to pay for the unreliable goods.

Don't buy a pig in a bag, or in other words, don't order a bicycle that you know nothing about, except the description of same on paper. Bring your description to us and we will tell you the difference between it and the kind we want to sell you. We sell bicycles on time, but if we were to handle an inferior grade there would be so many of them to come back on us that we would have to go out of business very quick.

We know our customers. We protect them. We keep their bicycles in repair for a very small cost.

The Morrow coaster brake is IT and IT is all right. We keep IT in repair for one year free of charge. We have one that has been running for six years. Good bicycles for all size people at from \$14.50 to \$40.00 at Joseph Stanley Bicycle Peele & Co.'s. If you have not seen our stock you have missed something. If we owe you anything come and get your pay. If you owe us anything, settle with delay.

"Little Joe Peele" is the sort of fellow who is apt to be largely ridiculed by his fellow townsmen, yet, as he himself says: "The people of Tarboro read every ad that Joe Peele puts in the paper, they have got so they look for them. They call me 'Little Joe the advertiser'—anyway, 'Little Joe' sells the wheels," and whatever may be the popular attitude toward his methods, the fact remains a significant testimonial to them, that he still continues to sell bicycles years after both of the older dealers have gone out of business. Not simply that, but he is in a position to continue in this or any other line indefinitely, because he has acquired the art of making the people read his advertisements.

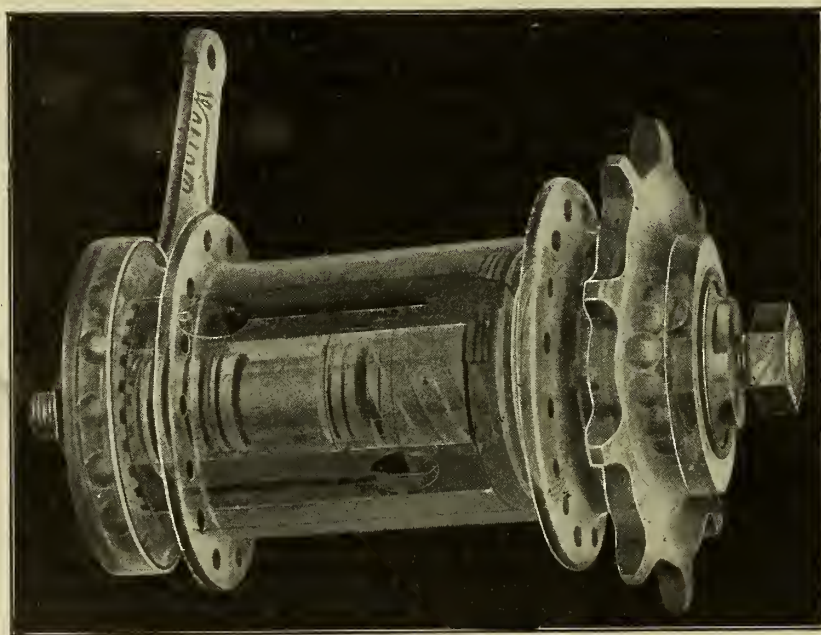
Why Coaster Brakes Require Care.

Nothing goes on indefinitely without showing signs of age—except time. In mechanism of any sort, constant attention is required to prevent the inroads of neglect and simple age. This is required most particularly in the case of close fitting and accurate parts such as are encased in the shell of the coaster brake. Dust and dirt on the chain and sprockets work their evil in a short time, but within the hub although the process is slower, it is no less certain, and the occasional inspection and treatment is even more important because the device is quite as essential to comfort and safety.

It is well worth the while to

SPECIFY THE MORROW COASTER BRAKE

and to insist on getting it.



The first, the Morrow remains the foremost coaster brake—the one that combined cycling pleasure with personal safety. No invention has done more.

ECLIPSE MACHINE CO.,

Elmira, N. Y.

FINE STEEL FROM IRON RUBBISH

Remarkable Results of Electric Smelting at a German Plant—Some Details of the Process Employed.

During the entertainment given to the visiting society of American engineers by their German colleagues at Dusseldorf on the Rhine, in August, a visit was made to electric-steel works of Richard Lindenberg, at Remscheid Haston, Rhenish Prussia, to witness the production of steel after the new patent process, the invention of Dr. Engineer Paul Heroult, France. During the past several years technical literature of many countries has teemed with extensive reports regarding smelting processes by electricity, but few, if any, of these have been put into successful operation, says the American Consul at Barmen, in a report to Washington. The Iron Age recently contained an article on electric smelting for pig iron, but said nothing of the feasibility or economy of producing steel by this process.

On arrival at the Lindenberg Works surprise was expressed by the visitors to find that under this new process the production of the highest grade steel had been in successful operation continuously night and day since February, 1906, and that after a sufficient trial of the new process the old crucible methods formerly employed had been entirely discontinued.

This plant produces almost exclusively high-grade and alloy steel, for which there is a great demand by the immense skate, cutlery, and tool manufactories in this district, of which industries those at Remscheid and Solingen are the most important in Germany, and the demand for the new steel has become so great that an enlargement of the plant is being made to increase the output. Up to the present time high-quality steel has been produced by a smelting process in graphite crucibles with a capacity of only 65 to 110 pounds, and as the necessary raw material had to be imported from Sweden or Denmark, the expense was very great, costing from 80 marks (\$19.04) to 350 marks (\$83.30) per ton, with an additional smelting expense of from 37.80 marks (\$9) to 100 marks (\$24) a ton.

At the Lindenberg electric works high-grade steel is produced from the most ordinary scrap-iron rubbish of the cheapest kind and quality, and its condition is quite immaterial, as by the process all damaging substances, such as sulphur and phosphor, are practically eliminated, being reduced to one one-hundredth of 1 per cent. The cost of this scrap iron varies from 45 marks (\$10.71) to 60 marks (\$14.28) for 1,000 kilos

(2,200 pounds), and the loss of material in slag and refuse varies between 6 and 8 per cent.

This rubbish is first melted in a tilting furnace or oven, constructed similarly to those used in our American smelting works. After being thoroughly reduced to a fluid state it is poured and conveyed in a retort by a traveling crane to the Heroult patent electric oven, which has a capacity of from 1½ to 2 tons. In this oven the necessary quantities of carbon, manganese, chrome, silicium, nickel, tungstate, arsenical iron, etc., are added, to produce any kind or quality of steel desired. The whole process takes from 2 to 2½ hours.

The developing bath is heated by an electric current of 100-volt tension, which is brought into connection with the oven by means of a coal electrode and carried back to the circuit by a second coal electrode, both of these electrodes being suspended perpendicularly through the top of the oven, and adjustable so as to nearly, but not quite, come in contact with the melted mass. The current leaps from the electrode in a wide, mighty voltaic arc, and passes through the mass to the second electrode, thus producing the requisite degree of heat sufficient for the purifying and finishing process.

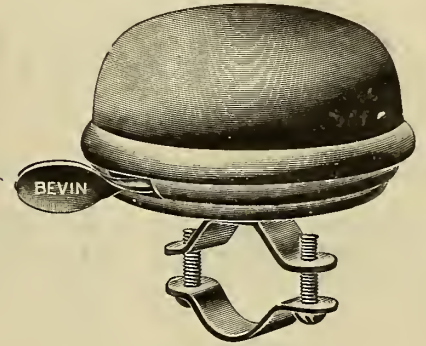
The casting molds for the electric steel are the same as are used in any other factory. The cost of production depends upon many points which will become clearer after further experience with the new process. Raw material, fuel, electric current, wages, etc., depend largely upon the locality, etc., and the improvements in the process that may be made make it difficult to quote reliable figures, but it is safe to say that an average quality of steel, as heretofore produced by the crucible process, can be made by the electric process for from 90.66 marks (\$23) to 100 marks (\$24) per ton.

Mr. Lindenberg himself gave assurances that a great saving could be made by having ovens of 10-tons capacity. The consumption of electric current in the present 2-ton furnace amounts to 360 kilowatt hours per ton of steel of the highest grade, and it is believed that by the employment of 10-ton furnaces the current could be reduced to 160 kilowatt hours per ton of steel of the same quality. If a lower standard of grade and purity were desired, the current might be reduced to 100 kilowatt hours to the ton of steel.

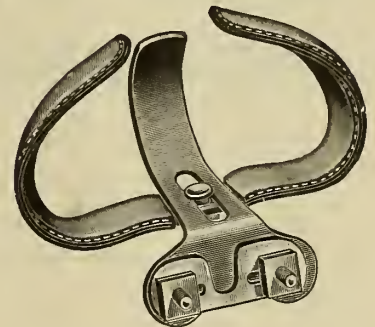
The consumption of the electrodes is less thus far than was calculated with the 2-ton

THE "Good Old Standbys"

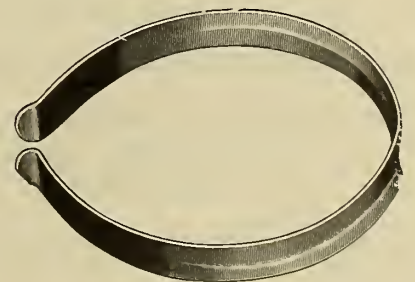
BEVIN Bells



BEVIN Toe Clips



BEVIN Trouser Guards



Prices as interesting as ever.

Bevin Bros. Mfg. Co.
EASTHAMPTON, CONN.

We have something different in a
3-BAR BICYCLE

We can save you money on tires and sundries. New clean stock.
THE BECKLEY-RALSTON CO.
80-82-84 Michigan Avenue. Chicago.

oven in use—it costs about 75 cents an hour. In a 10-ton oven this would probably be reduced to 30 cents an hour per ton. No damage to the steel from the electrodes has ever taken place, as they are never allowed to come in contact with the steel. It was stated by Mr. Lindenburg that a 10-ton oven could be as easily operated as the 2-ton furnace, which, with the help of an electric traveling crane, is now performed by two men and a boy. Thus far no repairs to the oven have been necessary. The electric steel produced at the Lindenburg works surpasses greatly that of any crucible steel ever made, both in quality and chemical purity. By this process the steel is freed and kept clear

of all gas and bubbles, which has never been possible by the old methods.

This advantage of the electric steel over the steel manufactured by the old system is because of its superior purity, and permits the introduction of from 20 to 30 per cent. more carbon than in the crucible steel. It can be forged easier, is not easily affected, like the crucible steel, by the damaging influence of overheating; it is stronger and more firm, and offers a much greater resistance to wear and tear. The new system also gives added independence on account of the very ordinary material used for producing the steel. Such advantages have never been reached by any other system, and it has only recently been given

to the public. This is accounted for by the fact that the inventor has kept the success a secret, until he was enabled to demonstrate to the public a complete, successful working plant.

The electro process is based on scientific metallurgical principles, which are of course the secret of the inventor, while the old crucible method was a remelting system, and dependent upon the use of only the most expensive ores.

"The A B C of Electricity" will aid you in understanding many things about motors that may now seem hard of understanding. Price, 50 cents. The Bicycling World Co., 154 Nassau Street, New York City.

THE MAN IN THE CAB

with his unswerving allegiance to duty, represents the care, forethought and consideration which the

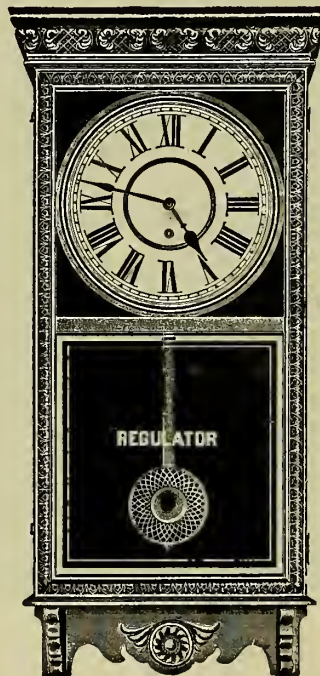
LAKE SHORE & MICHIGAN SOUTHERN RAILWAY

gives to every detail of its wonderful system for the easy and safe transportation of the thousands who annually travel from East to West, and vice versa, over their famous trunk line

**Direct Connections Between
Boston, New York, Buffalo, Cleveland,
Chicago, Pittsburg, Cincinnati
and St. Louis.**

Regulator Clock

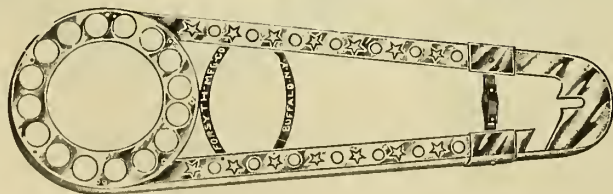
GIVEN AWAY!



WE will make you a present of one of the splendid Regulator Clocks, shown on this page if you will send us 24 Never-leak Certificates. These clocks are over 3 ft. high, 16½ in. wide, case solid oak, 8 day movement, constructed of brass and steel and fully guaranteed. Any Brass Sign certificates you may have on hand or hereafter obtain through purchases of Never-leak, will be allowed to apply on the clock. One of these clocks will be an ornament to any office, shop or store. One certificate is enclosed with each dozen 4-ounce tubes of Neverleak. Twelve certificates will entitle you to a Brass Sign as heretofore.

**BUFFALO
SPECIALTY COMPANY,
BUFFALO, N. Y.**

FORSYTH SPECIALTIES.



Full Chain Guard with All Connections.

Made in sections and riveted together, giving enough elasticity to avoid the "twang" of a one-piece guard. Adjustable to stretch of chain and to differences of length between centers of axles.

FORSYTH MANUFACTURING CO.,

**"Handy things
to have about
the house."**

We also make

**Mud Guard Fittings,
Sprocket Guards,
Metal Hand Brakes
and other specialties.**

Buffalo, N. Y.



Half Guard with All Connections.

Notice the method of attaching front connection. Enough adjustment to meet the angle of any frame; a little feature all our own. It counts. These guards are just a little better than any others. That's why we are still making and selling lots of them.

THE BICYCLING WORLD and MOTORCYCLE REVIEW

FOUNDED 1877.

Volume LIV.

New York, U. S. A., Saturday, December 8, 1906.

No. 11

JOBGING BICYCLES DUE TO JUMP

Effect of Stringency of Tubing and Other Materials Likely to be Felt—One Maker's Prediction.

Only those manufacturers who were tardy in placing their specifications or who have decided to increase the original estimates of their 1907 productions are in position to fully realize the extent of the shortage of tubing that exists. It now requires from four to five months to have orders filled, so lengthy is the "waiting list."

In several instances the situation has played hob with calculations and the efforts to obtain the necessary tubing has resulted in absorbing practically all of the limited stock that the jobbers have carried. There is little of it to be had at any price and stringency of about the same nature exists in respect to forgings, castings and practically all other metal manufacturer.

It is not unnatural that such a state of affairs should have influence on the price of the finished wares into the construction of which the materials enter. One of the articles that already has been affected and that is likely to feel the influence to an even greater extent is the stripped or jobbing bicycle. Quotations already rule far above the normal and the upward tendency is becoming even more pronounced. Frank E. Southard, the head of the Toledo Metal Wheel Co., who is in a position to know and who was in New York this week, stated as his belief that the stripped bicycle will touch \$15 within 90 days.

That likelihood will not, however, cause extreme regret. It may give a portion of the jobbing trade and the mail order houses some painful pangs but it will make for better business on the high grade nameplate goods and thus serve the established agents to good purpose.

Thomas Makes a Change.

W. K. Thomas, for many years the sales and advertising manager of the Miami Cycle & Mfg. Co., Middletown, Ohio, has resigned those duties and assumed the office of advertising manager of the Cassady-Fairbanks Mfg. Co., Chicago, makers of steel stampings and hardware specialties.

Thomas's change will come very much in the nature of a surprise as he had been looked upon almost as a Racycle "fixtured." He is a bundle of aggressive energy and outspoken enthusiasm and cannot well fail to leave his impress wherever he may go. "I left the Racycle with regret and still am in love with the old girl," was one of his valedictory remarks. In his new berth Thomas is in contact with one of the "old guard" of cycling, Harry Cassady, who formerly was in the parts trade.

B. & S. Cross the Border.

Canadians soon will be able to procure first grade drop forgings of home manufacture, the Canadian Billings & Spencer Co., with \$200,000 capital, having been formed for that purpose. The enterprise is, of course, an outgrowth of the well known Hartford, Conn., company of the same name; F. C. Billings is its president. The actual manager of the Canadian business, however, will be J. Gill Gardner, of Brockville, Ont., who will assume the duties on January 1st, when he will relinquish the management of the tool, steel and forge department of a Brockville concern. The exact location of the B. & S. plant has not been decided on but Brockville and several towns are making efforts to secure it.

Keim Sells Out to a Corporation.

John R. Keim, who so long has been engaged in the production of cycle components in Buffalo, N. Y., has disposed of his interests to a corporation styled the John R. Keim Mills, Inc., the transfer already having been effected. Although Mr. Keim himself retires, the former managers and working organization will remain.

COASTER BRAKE SITUATION UP

Makers Get Together and After Discussing Conditions, Decide to Take Steps to Correct Existing Abuses.

Jobbers and dealers who have been accustomed to play fast and loose with coaster brakes are likely to find that henceforth the old practices may prove in the nature of boomerangs.

The "throat-cutting" and abuses that have grown up have reached such a state that the manufacturers could not keep their eyes closed to it. As a result, representations of at least three of the well known coaster brakes got together within the past week and frankly discussed the situation.

The need of corrective measures was made plain and as an outcome of the conference such measures will be in the future applied to all offenders. Heretofore each manufacturer has acted on his own initiative with the result that the abuses simply have shifted from one brand of coaster brake to another. Under the new order of things, the man who offends against one will offend against all and will be treated accordingly.

Harris Goes from Shelby to Seamless.

R. R. Harris, eastern sales manager of the Shelby Steel Tube Company, has resigned that office to accept a similar position with the Seamless Tube Company of America, Pittsburg, Pa. The latter company has a big mill in Monessen, Pa., and will include bicycle tubing in its production.

Benson Becomes a Treasurer.

At a meeting of the directors, held last week, E. S. Benson was elected treasurer of the G & J Tire Co., Indianapolis. He succeeds C. L. Pepper, who long had been connected with the company and whose

resignation reluctantly was accepted. Benson's promotion comes as the result of long and intimate acquaintance with the tire industry in which he had served in many capacities. Until J. D. Anderson, G & J's new president took him to Indianapolis, early this fall, Benson for several years had been manager of the Hartford Rubber Works Co.'s New York branch.

Great Britain's Great Export Trade.

The month of October added to the impressively increased total of Great Britain's cycle exportations. There were shipped abroad 7,202 completed bicycles valued at £37,351 and parts to the value of £51,257, a total of £88,608 as against £82,905 in October, 1905. For the ten months of the year the number of completed bicycles exported was 64,493, valued at £356,679 and parts worth £595,744, an aggregate of £951,823 as compared with only £768,651 for the corresponding period of last year—a prodigious increase.

During the same period, Great Britain imported but 1,213 finished bicycles, valued at £7,240, and parts to the value of £126,930, the total, £134,170, being an increase of £23,037.

Sifting the Jobbing List.

Ralph D. Webster and Frank Moseberg, of the special committee appointed by the Cycle Parts and Accessories Association to pass on the list of those entitled to be classed as jobbers, held a session in New York on Thursday last but, of course, the result of their work will not be made public until after the association's meeting in January. Owing to indisposition, L. M. Wainwright, the third member of the committee, was unable to be present.

Mann Gets a Whole County.

W. F. Mann, Yonkers, N. Y., who has handled Indian and Yale motorcycles locally for several years, is next year going into the business on a more extensive scale. His first move in that direction has been to secure the Indian agency for all of rich Westchester county, the town of Port Chester excepted.

Six-Cylinder Motorcycle Coming.

A London firm of motor bicycle manufacturers is reported as being about to bring out two new models driven by multi-cylinder engines. One of them is to be equipped with a four, and the other with a six-cylinder motor, the latter being rated as seven horsepower. Both motors will be of the V-type.

The Retail Record.

Little Falls, Minn.—Charles Guernon, removed to larger quarters on First avenue, southeast.

Traverse City, Mich.—Houghton & Manning, sold out to Mrs. Harriet Robey.

Miami, Fla.—Lofton & Einige, succeeded by McIntosh & Richardson.

EXPERTS MOVE UP IN OCTOBER

Big Shipments to United Kingdom, the Continent and Japan Swell the Total for the Month.

The export report for the month of October, 1906, when compared with its predecessor of a year ago, is one of the most favorable of the year in that it exhibits an increase of close to 50 per cent., or \$30,000 in round numbers. This is made up of the jump from \$2,952 to \$17,662 in the case of the United Kingdom; from \$12,391 a year ago to \$22,969 in the case of Japan, \$2,875 to \$4,449 to Other Asia and Oceania, \$4,262 to \$5,789 to British Australasia and from \$12,713 to \$19,723 in the case of Other Europe, in the aggregate these increases bringing this year's total to \$95,094 as compared with \$65,965 last year. As compared with the total of \$59,717 for September, 1906, this is even more favorable. Where the returns for the period of ten months ending with October in the past three years are concerned, the showing is still more favorable, for despite the extremes of fluctuation showed by the monthly reports during the past year, the loss of one month frequently almost counterbalancing the gain of another, it is evident that there is a steady though slow upward growth. In fact such items as the United Kingdom, and the Netherlands have almost doubled in one case and more than trebled in the other during that time, the increases being from \$179,613 to \$329,324 and from \$36,053 to \$110,275 respectively. Other Europe also exhibits a very substantial gain, having climbed from \$152,631 to \$211,526. The increases in the case of other Continental countries such as Germany and Italy taken together with those of Mexico, the Argentine, Brazil and other South American countries, are responsible for an increase in the total for the period in question of from \$1,137,722 to \$1,248,491.

The report in detail follows:

	October:		10 Mos. End'g	October:
Exported to—	1905.	1906.	1904.	1905.
United Kingdom	\$2,952	\$17,662	\$219,854	\$179,613
Belgium	694	1,367	46,658	20,909
France	3,834	779	73,883	62,671
Germany	4,894	721	104,005	54,190
Italy	1,784	1,212	32,381	18,769
Netherlands	4,851	1,489	73,737	36,053
Other Europe	12,713	19,723	140,311	152,631
British North America	1,868	1,915	108,352	110,048
Mexico	5,046	7,461	37,314	53,518
Cuba	2,850	1,830	29,583	32,981
Other West Indies and Bermuda....	1,391	1,749	27,909	21,448
Argentina	752	594	15,168	11,900
Brazil	344	744	11,850	4,969
Other South America	1,279	3,707	17,442	13,576
Japan	12,391	22,969	275,886	242,970
British Australasia	4,262	5,789	145,354	73,294
Other Asia and Oceania	2,875	4,449	51,149	41,151
Other Countries	285	934	13,699	7,001
Total	\$65,965	\$95,094	\$1,424,535	\$1,137,722
				\$1,248,491

History of the Hammer.

The hammer, besides being a tool of universal use, is probably the oldest representative of a mechanic's tool kit. The hammer was originally a stone fastened to a handle with thongs, and it was as useful as a weapon as a tool.

Hammers are represented on the monuments of Egypt, twenty centuries before our era. They greatly resembled the hammer now in use, save that there were no claws on the back for the extraction of nails. Claw hammers were invented some time during the Middle Ages. Illuminated manuscripts of the eleventh century represent carpenters with claw hammers. Hammers are of all sizes, from the dainty instruments used by the jeweler, which weigh less than half an ounce, to the gigantic fifty-ton hammer of shipbuilding establishments, some of which weigh as much as fifty tons and have a falling force of from ninety to one hundred. Every trade has its own hammer and its own way of using it.

De Dion to Use Mechanical Valves.

It is announced that after this year the famous De Dion bicycle motors will be equipped with mechanically-operated inlet valves. This is all the more interesting because the De Dion engines were the first low powered high speed internal combustion motors to be made to run successfully, and have for many years been a sort of pattern for makers all over the world. They have always been fitted with the automatic type of inlet valve, however, and the ordinary motorcycle motor, which is a close reproduction that type has followed suit.

Hendee Increases the Indian Line.

The Hendee Mfg. Co., this week, let it be known that a 3 horsepower single cylinder Indian will be added to their 1907 line. It will be in the nature of a "special," however, and will be catalogued at \$250. No particulars of the new machine were made public.

The Motorcycles at the Palace Show

When 20 motorcycles are displayed in company with about 220 motor cars it follows that the motorcycles cannot fill a very large part of the public eye. This was

the Curtiss, the Indian, the Wagner, the Simplex, the R-S, the F. N. and one other. The three detached exhibits were those of the Yale-California, the Thor and the

the agency for a part of New York, Pennsylvania and Connecticut, brought it on the scene. The Reliance, F. N. and Simplex were "added starters," so to speak. They had not been officially booked. The first named obtained a corner in an automobile booth, the other two shared the Wagner stand.

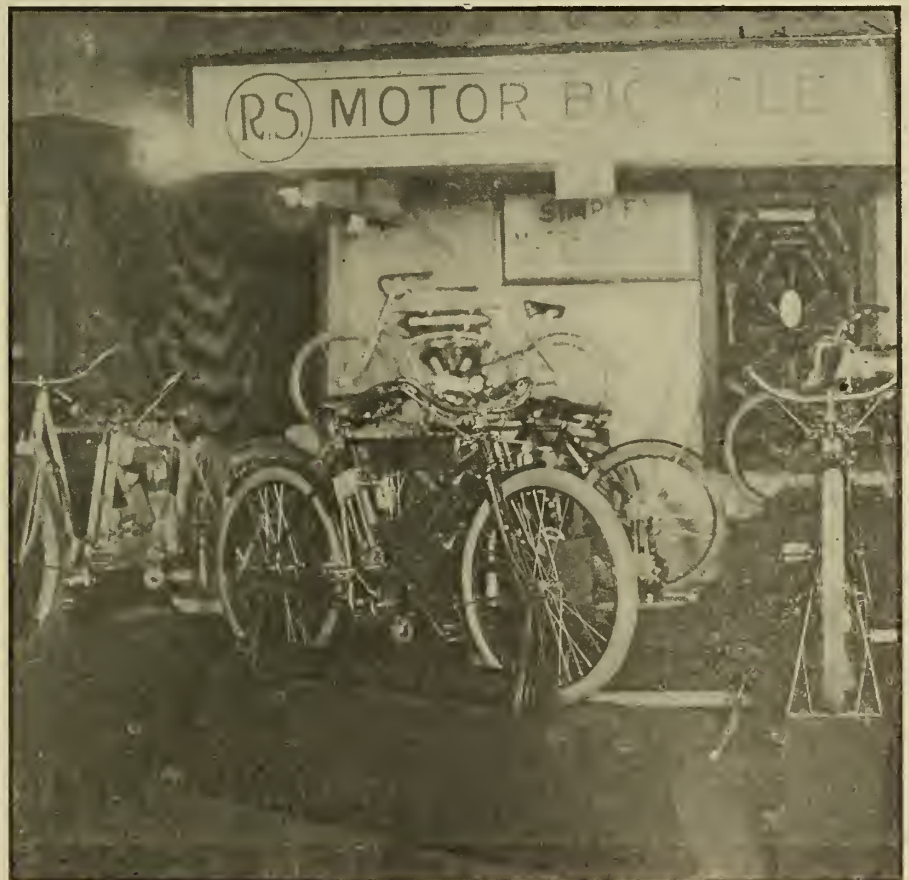
The Hendee Mfg. Co. had the roomiest booth and with one Indian motor bicycle, a red enameled, red upholstered tricar and a delivery van, made a brave front. The Ovington Motor Co., with the F. N., had the most inconspicuous position—in the rear of the Wagner space—but they demonstrated anew the advantage of "action" as an attention-arrester at a public exhibition. The four-cylinder bicycle motor in itself was a novelty to most of the visitors, but in the solitary machine which Ovington staged the cylinders and heads had been cut sectionally and by the employment of electrical power the pistons and valves were shown in motion and this feature served to attract and keep an interested crowd almost constantly around the F. N. Although it may not have attracted as much notice as it deserved, probably the most striking motorcycle displayed was



the case with the exhibits that formed a part of the show in Grand Central Palace, New York, held under the auspices of the Automobile Club of America, and which terminated to-night.

But for all of that the exhibitors of motorcycles have save small fault to find. Their wares received as much attention as any reasonable person could expect and this means more attention than ever had been bestowed on them before. It was, indeed, of a most gratifying nature and served to add another straw to the many that now points to the not far-removed "day of the motorcycle"—the "cycle for the masses which puts heat, hills and headwinds to rout." The great majority of those who attend automobile shows are richer in hopes than in the spondulix that are required to possess motor cars; motorcycles are more within their means. It is not strange, therefore, that the rising of the motor tide should cause an increased number of such persons to risk an eye and a thought on motorcycles. It was not alone the men who were interested. The interest of womankind in the tricars was distinctly observable and several inquiries for tri-cycles also were reported. Many agents were in attendance and much real business was booked.

The grouping of most of the motorcycle exhibits helped the good impression. Although but 20 of the little vehicles were displayed they represented 10 separate manufacturers and of the ten all save three were shown in adjoining booths; they were



Reliance, the latter of which did not put in appearance until Wednesday, when J. L. Miner, of New York, who has just taken

the R-S tandem. Clean-lined, well proportioned, substantial-looking and finished in
(Continued on page 303)

The Dealers Who Pinned their Faith to National Bicycles

in 1906

were the men who did business on

"THE SUNNY SIDE OF EASY STREET"

They had the bicycles with which to quickly answer the "Show me" demand—the bicycles that are not like the common run of bicycles—the bicycles that have individuality and talking points (which are merit points also) and which when sold stay sold and sell others.

**If Your Business Needs a Tonic, Why
Not Try the National Agency for 1907?**

NATIONAL CYCLE MANUFACTURING COMPANY
BAY CITY, MICH., U. S. A.

**Comfort
Resiliency**

and 45 per cent. Saving in Tire Maintenance are the essentials
of the ever reliable

Fisk Bicycle or Motorcycle Tires

Like all Fisk products, they have a Quality and a Construction that is exclusive—real merit—through and through—that makes their distinct superiority apparent.

WILL OUT-LAST TWO OR THREE OF OTHER MAKES

THE FISK RUBBER CO., Chicopee Falls, Mass.

THE BICYCLING WORLD and MOTORCYCLE REVIEW

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Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should
Address us at P. O. Box 649.

NEW YORK, DECEMBER 8, 1906.

"I take a number of motorcycle publications, both foreign and domestic, but for practical information and real worth the Bicycling World and Motorcycle Review has them all beaten to a standstill."—Clyde M. Clough, Davenport, Iowa.

Motorcycle Enthusiasm and a Moral.

It is impossible to observe the great amount of interest aroused in the breast of the motor bicyclist when he reads the improvements of the year as written down at the show stands, without realizing what a valuable asset to the trade is that same spontaneous, eager enthusiasm. A change in the position of a single bolt or screw, a new position for the carburetter, an alteration in the shape of a mud guard, or the size of a tube—these are things which may not strike the eye, do not increase or decrease the cost materially. It may be they hardly affect the prime question of running under ordinary conditions. Yet to the real enthusiast, such changes mean a vast deal more than their mere apparent value indicates. They are bred of shortcomings which he has realized in his own experience, they promise remedies for difficulties which he has experienced, and as rein-

forcements to his own enjoyment of the sport. they are hailed with delight. When, as is frequently the case, the changes are of a more important nature, when they involve more radical alterations in one way or another, the spirit of their reception is increased proportionately, as a matter of course.

This year, for instance, are to be seen a general trend toward more flexible carburetters. longer wheel bases, less noisy mufflers, growing favoritism for the roller chain, and better chains all around. These things mean in a general way, more comfort for the rider under all conditions, better control at all times, and more uniform and obedient action even under unfavorable circumstances. Hence the atmosphere pervading the motorcycle fraternity is correspondingly of a cherry ripe hue. The eagerness with which the new models are inspected, the delight with which each little novelty is viewed and its probable influence on the performance of the machine discussed, shows that the bringing out of these new things is the turning point of a new epoch, the commencement of a new season of enjoyment.

It is precisely the same situation which used to exist in the ripest hayday of the bicycle business. The same effort on the part of the makers to exceed their former successes, the same enthusiasm on the part of the dealers, the same interest in the same degree, on the part of the rider. Of recent years, however, this sort of spirit has been allowed to languish on the part of those who handle the bicycle. Changes have grown less and less important, novelty more and more hard to find, and the enthusiasm which used to greet the new model, has somehow been permitted to languish and decay. And in so doing, the bicycle dealers have allowed one of their most valuable opportunities to go to waste.

It might be objected that then the enthusiasm of the beginning of the season was bred by these very changes, that now their absence, comparatively speaking, is responsible for the lukewarm spirit with which many riders look upon the new models. As a matter of fact, however, it was not the changes themselves, so much as the way in which they were handled by the dealers, that caused the wild rush for the bicycle shows, the eager poring over trade literature, the arguments which kept the bicycle world so very much alive at one time. Even so small a thing as a new

method of reinforcing a brazed joint in the frame, for example, was hailed with delight, dilated upon, explained, and re-explained until its importance had been exaggerated beyond all measure of reason. Yet the effect was to breed an interest which brought in new business, strengthened the old, and aroused to activity everyone who came within reach of the cycling element.

What is needed to-day for the bicycle, is that self-same spirit of real enthusiasm, that intensity of interest upon the details of the machine in their every bearing upon its performance, that love of the thing for the sake of the sport of which it is the instrument. Let the bicycle dealers again dip into the thing in the same way and stir up their own fires of interest; ride a little more for the good of it and the experience; think a little more for the novel ideas which catch business; talk a little more, for the good of the cause as well as for their own profit; let them make the most of the least that is novel, play upon the advantages of things which are of vital importance even though they do not appeal to the eye, strain every nerve to familiarize themselves and their customers with the hidden as well as the external workings of the machine; and thus in every way stimulate and encourage that enthusiasm which is the soul of work and play, and they will discover before long that the mourners' benches are empty, and the dead clay of the mere "game" flushed with new life and vigor.

As to "Following Directions."

"I've followed all the directions to the letter and still I can't get the machine going again," is a not uncommon complaint heard from the less experienced members of the motorcycling fraternity. "Following directions explicitly" is an excellent plan of procedure and particularly when they are the directions sent with the machine by the manufacturer, that is, it is a good thing until sufficient ripe experience has been gained to realize the importance of the instructions as well as that of looking further abroad for trouble when it arises. It is well to follow the directions but do some head work as well and the combination will seldom fail to bring the desired result. When framing them the maker can not anticipate every possible contingency, so that slavishly following the printed rule naturally does not always bring relief.

DEC 9 TO DEC 15 **SIX DAY CYCLE RACE** **MADISON SQ. GARDEN** **DEC 9 TO DEC 15**

FAC-SIMILE OF ONE OF THE DISPLAY CARDS USED TO ADVERTISE THE RACE

When Thomas L. Hamilton raises his hand and fires the pistol at five minutes past midnight to-morrow (Sunday), sixteen riders, representing that many teams and supposedly the best stayers in the world, each with muscles tense, their nerves keyed to the highest pitch, will grasp the grips of their handle bars, and start full of confidence in what will be for some of them the longest and hardest journey of their lives. At the end of the long travel awaits for some of them fame, such as it is, and money—perhaps. As they sit there await-

has a mind picture of the glitter of gold flashing like a will-o'-the-wisp, and as the succeeding hours transform him into a living automaton the vision will become brighter or fainter, according as his chances of victory increase or decrease. The discordant shouts of a tumultuous throng are as music to their ears, and when the sharp crack of the pistol makes itself heard above

"Plugger Bill" Martin, now a landlord in Southern Australia, who covered in six days 1,466 miles, 25 miles more than the second man. Six riders survived the first ordeal of six day's incessant pedalling. In the second race, held in December, 1892, Albert Schock, the much ridiculed rider of the only safety bicycle in the race, was the first of ten riders to finish, and he won the race by more than 100 miles, with a score of 1,600.3 miles. Schock represented Germany and was one of the only two foreign riders that have ever succeeded in winning the first prize. No race was held the following year in New York City, but six men



WALTER RUTT, GERMANY

ing the signal to start each fancies that he hears in the vague hereafter the shouts of the multitude proclaiming him the victor. Victory is sweet to any man but it is not the thought of victory alone that causes each to unconsciously smile, for he also



ROBERT J. WALTHOUR, ATLANTA, GA.

the din, sixteen athletes, trained to the minute, will begin to revolve their feet for six long days and longer nights.

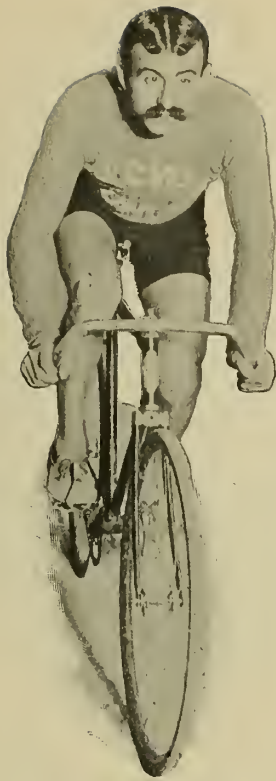
At 12:05 o'clock on the morning of December 10th, will start in Madison Square Garden, New York City, the fourteenth annual six-day bicycle race; it will finish at 10:05 p. m., Saturday, December 15th. The first six-day bicycle race ever held was in October, 1891. All the contestants were mounted on the old style high wheels and the contestants stuck to their tasks as long as their strength permitted. The men rode singly and were not allowed to be relieved by another rider so that any distance they lost while off the track was chalked up against them. So it was a pitiable sight to see the remnants of what had been strong men still battling after the third or fourth day. The first race was won by



FLOYD KREBS, NEWARK, N. J.

started in a six-day race in Philadelphia. It was a rank failure, Ashinger and Forster being the sole survivors, the former finishing fifteen miles ahead of the other.

In 1895 a six-day race for women, on the so many hours a day plan, was attempted



EMIL GEORGET, FRANCE

for novelty's sake, but it also proved a failure; this was won by Frankie Nelson. P. T. Powers and the late James C. Kennedy took hold of the race in 1896 and from then until the present it has been a paying proposition. That year the contest was won by the brilliant Irishman, Teddy Hale, who set up a new record of 1,910 miles 9 laps. Frank Miller won in 1907, putting the mileage up to 1,983, and herepeated the trick the next year, riding 2,007.4 miles, an individual record which still stands. In 1899 the New York State legislature passed a law prohibiting bicycle racers from riding more than twelve hours out of twenty-four in a race. This was because of a widespread agitation over the brutality of the continuous races in which the riders kept on going long after they were physically unfit to stand the strain. In the first team

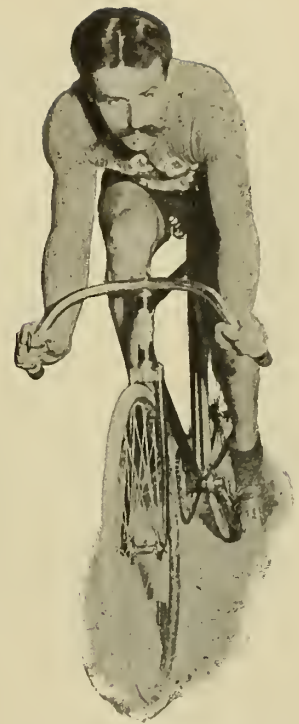


JOE FOGLER, BROOKLYN



E. F. ROOT, NEW YORK CITY

race Miller was paired with Frank "Dutch" Waller, and the team beat Otto Mayer and Archie McEachern for first place by two laps. They rode 2,733.4 miles during the week, figures that have never been erased. Floyd McFarland and the late Harry Elkes won in 1900. McEachern was mated with Bobby Walthour in 1901 and the race was particularly interesting, five teams being tied at the finish. Walthour won the deciding sprint, and the other teams that tied were Maya and Wilson, Newkirk and Munroe, Babcock and Turville and Butler and MacLean. In 1902 the late George Leander and Floyd Krebs copped the big money after defeating Newkirk and Jacobson in the

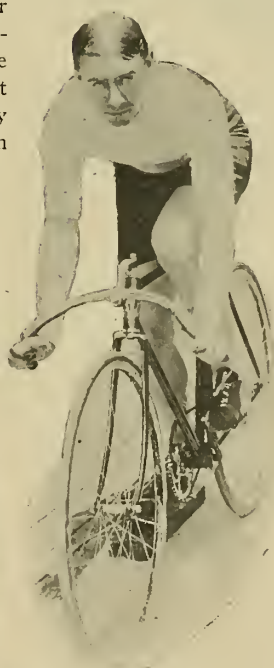


LEON GEORGET, FRANCE

sprint. The race of 1903 resulted in another big tie, seven teams being accredited with 2,381.3 miles at the end of six days. That was the year the notable spill marked the final sprint and out of which Walthour emerged victorious, Leander getting second for himself and Butler. In the next year a strike by some of the riedrs caused several of the teams to quit after the second day but it did not diminish the interest in the race; in fact, it had rather the opposite effect and E. F. Root jumped into sudden fame when he finished first with Oliver Dorlon as his partner. Vanderstuyft and Stol were second, the Hollander being defeated in the running off of the



J. B. COFFEY, BOSTON



ERNEST A. PYE, AUSTRALIA



URBAN MACDONALD, NEW YORK



A. W. MACDONALD, BOSTON



JOHN BEDELL, LONG ISLAND

tie. Last year Root and Fogler and the Bedell brothers were tied at the completion of 142 hours, and Root got first money by outsprinting John Bedell. James F. Moran beat Stol for third place, they also being tied, one lap behind the leaders. The total distance covered was 2,260 miles.

It is believed that the race will be very fast for the first twenty-four hours as a certain team is reported to be making prepara-

tions to attempt to steal a lap on the others during the early hours of Monday, and if successful they opine that they can hold the advantage for the remainder of the week. There is no denying the fact that the race almost at hand is causing more comment than previous six-day grinds. Whether because of the renewal of interest in cycling or due to the greater publicity given the race, or to both, be the cause, is not certain. Suffice it to say a forecast gives evidence of a crowded house all week. It is common to hear people talking about the race in the cars, in restaurants, in clubs and on the street, and, of course, all the cyclists hereabout are going whether they can get passes or not. Widespread publicity has been given the race this year and half sheet posters in all the languages have been freely



CARLO VANONI, ITALY

a dozen forms of bills in the English language are out and cards in French, Italian, German and Jewish, have been printed and circulated throughout the metropolis. Half put up in the sections colonized by these various nationalities. Then, too, the daily newspapers have seemed to publish more about the riders than they did a year ago, when the promoter doubled the price of admission a day ahead of time because the crowds became so great.

The race will, as usual, be for cash prizes, and whatever the riders can get from the promoter in the way of expense money, guarantee, etc., which varies in proportion to their effect on the box office receipts. The prizes are as follows: First, \$1,500; second, \$1,000; third, \$700; fourth, \$500; fifth and sixth, \$250.

In all sixteen teams have signed for the big race and about as classy a lot as ever offered for the nerve-racking ordeal.



MENUS BEDELL, LONG ISLAND

The teams as announced to start to-morrow night are as follows:

Belgium-Holland Team—Arthur Vanderstuyft, Belgium; Johan Stol, Holland.

Australian Team—E. A. Pye, Swan Hill; A. J. Clarke, Melbourne.

Dixie-Yankee Team—Bobby Walthour, Atlanta, Ga.; Hugh MacLean, Chelsea, Mass.

German-California Team—Walter Rutt, Germany; Floyd McFarland, San Jose, Cal.



JOHAN STOL, HOLLAND



ARTHUR VANDERSTUYFT, BELGIUM

Irish Team—Matt Downey, Boston; James Moran, Chelsea.

Scotch-Irish Kids—A. W. MacDonald,



PETIT-BRETON, FRANCE

Somerville, Mass.; John B. Coffey, Boston. Canadian-Irish Team—Louis Mettling, Jamaica Plains; Patrick Logan, Boston.

Long Island Team—John Bedell, Lynbrook, L. I.; Menus Bedell, Lynbrook, L. I. French-Italian Team—Petit-Breton, France; Carlo Vanoni, Italy.

French Champion Team—Emil Georget, France; Leon Georget, France.

Little Old New York Team—E. F. Root, New York City; Joseph Fogler, Brooklyn, N. Y.

Mormon Team—W. E. Samuelson, Salt Lake City; G. L. Hollister, Salt Lake City.

German-American Team—Floyd Krebs, Newark, N. J.; Edward Rupprecht, Newark, N. J.

Wild West Team—Norman C. Hopper, Minneapolis, Minn.; Hardy Downing, San Jose, Cal.

National Turn Verein Team—Urban MacDonald, New York; Charles Schlee, New York.

Farmer and Messenger Boy Team—Frank Galvin, New Milford, Conn.; George Wiley, Syracuse, N. Y.

All the foreign riders arrived on La Lorraine last Saturday and all but two landed at the pier. The exceptions were Emil and Leon Georget, the French six-day champions, who have been press agented well, and who were regarded as the satellites from abroad. The reason they did not land with the others was due to the intervention of the immigration officials. When the quarantine officers boarded the steamer down the harbor and made their usual rigid examination, they found the Georget brothers suffering from eye trouble. The other riders kept "mum" about the affair and at the pier explained that both the missing Frenchmen were on board in their cabins suffering with the after effects of

sea-sickness. Afterward it came out that the immigration authorities thought the brothers were suffering with trachoma, a horrible contagious disease of the eyes, which is very prevalent among the French peasantry. That is why they were taken off at Ellis Island and detained for several days before being allowed entry into this country.

As soon as their baggage was examined the riders were taken to the Newark training camp by Dave Coburn, who is again looking after their interests and although the miserable weather of the week has prevented their training out of doors the riders from across the pond have been working their sea legs off by riding on the home trainer, and doing various other gymnastic



HUGH MACLEAN, CHELSEA, MASS.

stunts. Because of noticeable friction between P. T. Powers and C. B. Bloemcke the foreigners have not been allowed to train on the Vailsburg board track, and what open air riding they have done has been on the road.

'Quite the classiest bunch that has ever come over' is the universal opinion of all that have seen the visitors work out and it is believed that they will cut a better figure in the race than ever before. Vanderstuyft and Stol are old timers, Breton has ridden through two six day races, and his partner, Vanoni, started last year and was put out through no fault of his own. Walter Rutt has never tried a six day grind but looks like he can stand it.

The Salt Lake City aggregation got in on Monday and immediately went to Newark. They were delayed west of Chicago by a wreck, and according to McFarland were lucky to get here at all. Of those who came from Salt Lake City the only novices at

six day riding are Pye and Clark, the Australian pair.

All so-called "dope sheets" are based on previous performances and that is the only way to get a line on the riders entered for this grind. All the dyed-in-the-wool "fans" are prophecying all sorts of results but never has there been a time when the probable result has appeared so uncertain. A personal summary of the riders in the race may therefore be timely as well as interesting.

Root and Fogler, the "Little Old New York Team," will go to the post favorites with a great majority, by virtue of having won the race last year and because they are riding strong. Although Root did not race any this season he rode just enough to keep in condition and Fogler rode well at Salt Lake City. Both the New York riders broke training this week and are impatiently awaiting the signal to start.

The Bedell Brothers, of Lynbrook, L. I., and Newark, N. J., are said to be going great guns, but if their usual hard luck does not attend them they indeed will be fortunate. They figure upon winning the race, but while dangerous are not regarded as being able to finish in front even if they succeed in tying with the leaders.

Krebs and Rupprecht, who will represent the Bay View Wheelmen, of Newark, may be regarded in the same way. Krebs is a seasoned six day rider and won the race of 1902, but the halcyon day of the "Flying Dutchman" is almost over. His partner, Rupprecht, gave a good account of himself as an amateur, and may make good



LOUIS E. METTLING, BOSTON

in the grind, but it is not thought that the team will be in at the finish, that is, tied succeed in tying with the leaders. The way

they can win the race is to gain a lap and hold the advantage.

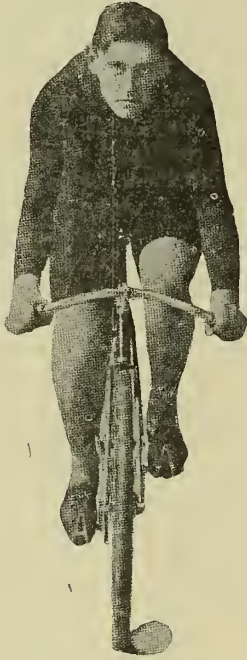
Schlee and MacDonald are an unknown quantity so far as this race is concerned. Schlee has been riding since 1896 and in 1902 made a record for the 25-mile Irvington-Millburn course that has stood since then. He won the five-mile amateur championship at St. Louis in 1904 and shortly afterward turned professional, where he has ridden with moderate success. Both these men are pluggers and it is not to be doubted for a moment but that they will stand up under routine work.

Galvin and Wiley is another combination

tion is one of the strongest in the race, providing Samuelson has not over trained. The "Mormon Spendthrift" delights in telling about his hundred mile workouts, although no one ever accompanied him on

is superstitious. Ten minutes after he had landed in New York last Saturday he picked up a five cent piece on the street and he had not gone ten steps farther before he found a quarter. A little while later he discovered a broken horseshoe which he carefully placed in his inside pocket, remarking that he would tie it to his wheel or carry it about his person through the race. The Belgian and Hollander are about as plucky a little combination as ever crossed the pond and they will probably worry the "bunch" frequently.

Breton and Vanoni are a cracking good team. Breton has ridden in two six-day



J. F. MORAN, BOSTON, MASS.

much on the same order. Galvin has always managed to keep going in previous races. Wiley is known as the diminutive Syracuse "Messenger Boy Champion," and is one of the recognized amateur cracks.

It is not thought that Walthour will ride like the Walthour of old. He has done no sprint racing for the last two years, but instead he has been pushing a high gear behind motorcycles, which may have slowed him. MacLean is also a pace follower and not as fast as others. Besides he had pneumonia last spring and that is known to leave its effects.

MacDonald and Coffey, the Boston youngsters, are likely to be the pets of the public in this race. Coffey was popular last year as an amateur and MacDonald made a remarkable showing in last year's race.

Although Mettling is a nice boy and rides well and Logan a plucky Irishman, the team is not considered dangerous and neither are Hopper and Downing. The latter pair, however, are expected to make a better showing than the riders from the Bay State.

The Hollister and Samuelson combina-

one of them. Hollister is fast and has always made good.

McFarland, he with the long legs and wise head, rode like a two-year-old this season at the Mormon capital, and it is unanimously agreed that the elongated San Josean will be in at the killing. McFarland acknowledges 31 years, but he carries them easily. Rutt, the champion of Germany, who is to team with him, will be the man to do the sprinting; whether he will last six days remains to be seen. There is a great similarity between Rutt and Kramer. One might be taken for the other by their photographs; place them side by side and they look like brothers. Rutt has the predominant chin and light curly hair. Rutt is one of the most popular riders on the Continent and there are few who would not put themselves out to do him a favor. He is the humorist of the foreign aggregation and in camp has been called a good natured pest, for there is scarcely a minute when he is not thinking of or playing some joke upon his fellows. He speaks very good English although with an accent.

Vanderstuyft and Stol are old hands at the six-day grind and although Vanderstuyft does not appear to be up to the standard, Stol looks better than ever. Stol



MAT DOWNEY, BOSTON



CHARLES SCHLEE, NEWARK, N. J.

racers and finished them and this year he has won several notable long distance events in France. Few know it, but his name is not Petit-Breton; that is simply a nick-name. Breton is a brother to Anselm Mazan, another six-day rider. His parents lived in Bretagne, a province in France, and when the younger brother began riding the public dubbed him "the little Breton" to distinguish him from his brother and the name has clung to him ever since. Vanoni is a peculiar conglomeration. He is American, French, Italian and Swiss all in one. He was born in New York City, on East Houston street, to be exact, thirty years ago, and when he was eight years old his parents went to France, leaving that country later for Argentine Republic. His father is an Italian-Swiss and his mother French.

Although touted as great, it is not thought that the Georget brothers will be quite great enough to win the race. There is no doubt about them being stayers par excellence, but when some of the bunch start to move, it is thought there will be a couple of Frenchmen uttering "sacres."

pearl gray, it was a delight to the eye. It is the first lady-front (the top bar is removable), rear driven tandem bicycle that has been produced and those who see no small future for the single track two-seater, could not fail to be most agreeably impressed.

From the standpoint of the experienced motorcyclist, no previous show had held half so much interest. This chiefly was due to the fact that the new Indian, of which much had been said but of which little was known, was "unveiled" and to the uncovering of the R-S horsepower mechanically-operated motor bicycle—not to mention the tandem—particulars of which had, however, preceded it. The Yale and the Thor components, among others, were known to have undergone considerable refinement and they, too, had been awaited with considerable interest. Unless it be that some expectations that the changes had entailed more or less radical alteration of design and appearance were disappointed, the curiosity that had been whetted was well repaid. Generally speaking, the machines disclosed substantial improvement. Two marked features—quiter mufflers and oiling without dismounting—indicated that the repeated urgings of the *Bicycling World* had not been vain. More flexible carburettors, longer wheel bases, and larger tanks, which means greater fuel capacity and radius, and roller chains, were other of the more notable tendencies.

Of 17 motor bicycles displayed, 13 were single cylinders, 3 double and 1 four cylinder; in addition there was 1 tandem, 1 tri-car and 1 delivery van. Of the total 11 used belt transmission, 8 chain and 1 bevel gear.

The G & J double-clinch tire and the new Goodyear mechanically-fastened tire also were included in the exhibits of their respective makers, while the improved Persons' Royal motor saddle was displayed on a number of machines. There were no pedal-driven bicycles staged but the Reading Standard people had several parts of their two leg-power machines in evidence and reported having booked orders for some 400 of them. The only other thing of a cycle nature in the building was Prof. Pickering's tricycle equipped with propellers, which formed a part of the curio show, that is, the air craft exhibit.

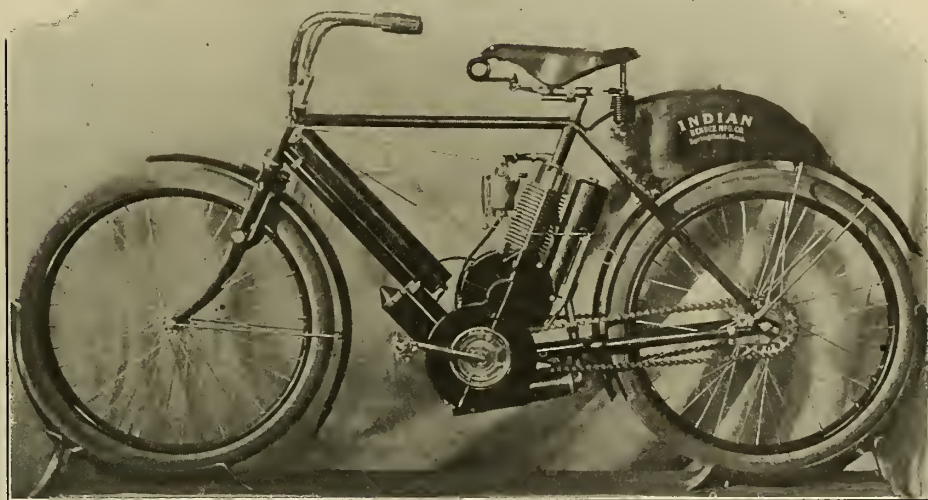
The Indian.

Of all the machines uncovered, none was awaited with greater eagerness or attracted more attention than the 1907 Indian. While they had let it be known that a new model entirely of their own manufacture and incorporating a number of innovations would be produced, the Hendee Mfg. Co. had been unusually successful in keeping to themselves the nature of these improvements. Little, if anything, had preceded the exhibit of the machine itself, and perforce curiosity had been whetted to

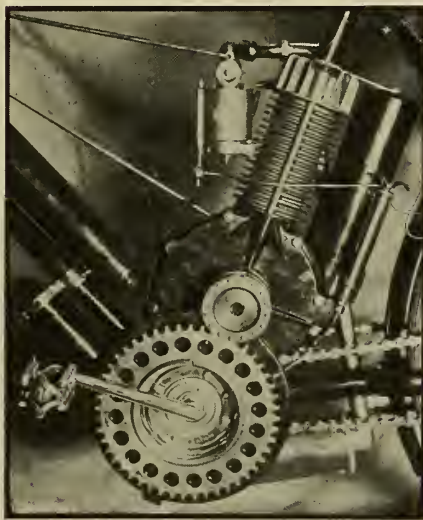
a fine edge. At the first quick glance, this new Indian does not appear markedly different in appearance from its predecessors. The same eye-pleasing outline of frame and disposal of equipment have been retained, the lengthening of the wheel base to 51 inches and the larger fuel tank making it seems but slightly strange.

In its proportions, $2\frac{5}{8} \times 3\frac{3}{4}$ inches, and in appearance, the motor is a replica of the one employed last year, the inlet valve dome and position of spark plug alone excepted.

countersunk seating in the inlet orifice; over the valve itself is then fitted a steel cage and over all is placed the dome on the top of which is one nut which holds the entire mechanism rigidly in place. To remove the valve, it is necessary merely to loosen this nut and lift off the dome and the cage. The position of the spark plug—which itself is much smaller than before—has been changed from the rear to the front of the engine, where more of the cooling air can reach it.



2½ H. P. INDIAN, \$210



INDIAN ROLLER-GEAR DRIVE

The 1907 motor is a grey iron casting, the use of steel, which rarely is used for such purpose, having proved a not wholly satisfactory experiment. Wider engine bearings all around are the rule and the wrist pin lock screw of the piston has been fitted with a more positive lock which prevents its working loose. The exhaust valve, port and pipe all have been enlarged and the arrangement of the inlet valve entirely altered. Formerly, the valve was screwed into the dome; now it is not screwed into anything but rests on the

Undoubtedly the most sensational change that has been made is the entire elimination of the short motor drive chain which was the chain that was most given to stretch and wear. In its place, there has been substituted a roller gear drive which is simplicity itself—merely a roller pinion gear affixed to the drive shaft of the motor and which engages with a hardened steel gear wheel or sprocket mounted on the countershaft cup, the sprocket embodying the Indian brass friction or compensating rings, which are of double the usual size. The roller pinion consists of fourteen hardened steel rollers mounted on hardened pins which are held in place by one ring and so arranged that any pin or roller, or all of them, may be replaced in no time at all. Both the roller and its engaging sprocket are enclosed in a dust-proof gear case and continuously run in an oil bath. The whole idea is wonderfully simple and well executed and presents a neat and compact appearance.

The carburetter also is a distinct departure. It is smaller than the one previously employed and is of the float feed-diaphragm type, which is in quite general use on motor cars abroad. The air is operated partly by the grip-actuated throttle, partly by suction, which latter opens and closes the diaphragm according to the force of the suction. What may be termed an air-lock is contained in the little cylinder which forms the top of the carburetter, a spring

pin fitting into one of a semi-circle of depressions firmly holding the air regulation exactly where placed.

The muffler, which was one of the few features that preceded the display of the machine itself, and its remarkable silence—which the *Bicycling World* remarked some months since—is larger but of the same shape as the Indian muffler of previous years. Tubular strainers are again employed but in addition there is a two-inch hollow chamber in the forward end of the muffler which has considerable to do with the silence obtained.

The coaster brake is the fourth of the chief innovations. It is made by the Corbin Screw Company for exclusive use on the Indian and dispenses entirely with the use of springs. It really operates on the principle of the internal expansion brake, three expanding tool steel rings forming the brake. The other internals are the same as in the regular Corbin coaster brake, but the sprocket is secured in a wholly different manner. It is held on the hub by what is technically termed a dog-clutch; that is, on the inner circle of the sprocket are six slight projections which fit into corresponding grooves on the hub, the sprocket being held in place by a locking ring. In other words, the sprocket is not screwed on and no threads being required there can be no stripping and the sprocket cannot be bound almost irremovably by the driving of the motor, as has happened in the past. It also makes changes of gear simpler. The button spoke holes in the hub flange are retained.

The oiling system likewise is a radical change and permits lubrication of the motor from the saddle. Instead of the oil tank forming a compartment of the gasoline reservoir it now is a tubular tank arranged vertically behind the motor and fitted with a pump which discharges the exact measure of oil required for one filling. The caps of both the gasoline and oil tanks are fitted with an ingenious interior valve which prevents the fluid from slopping or shooting out through the vent, which now is located in the side of the cap instead of in the top, as previously.

Among the minor refinements are the following: A chain adjuster comprising a screw and an elongated washer, which latter when its slotted ends are reversed increases the range of the adjustment and permits one inch additional use of the chain, which also is new, being of the $\frac{5}{8}$ -inch pitch roller type; a cushion fork oiling device which consists of a ball valve near the fork crown—when applied the oil runs down inside the fork to the hinge of the cushion; a battery clip or terminal taking the form of a bronze spring which holds itself in place on the battery end without nut or bolt; slightly longer handlebars, in which the double grip control is contained, as before; an internal seat post expander instead of a frame expander and

last, but not least, eight inches of insulated wiring have been dispensed with.

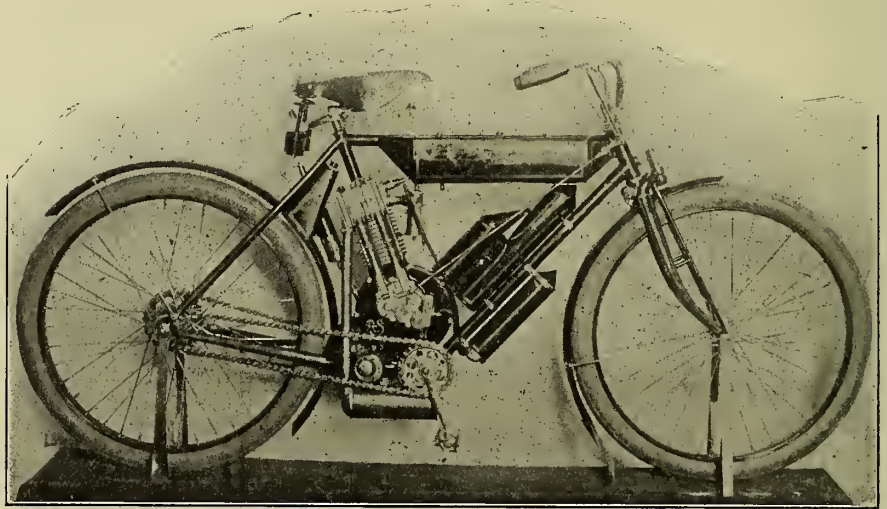
The Indian tricar and van employ the same motor and fittings as the bicycle. The tricar has been improved to the extent of widening the seat and lengthening the dash.

The R-S.

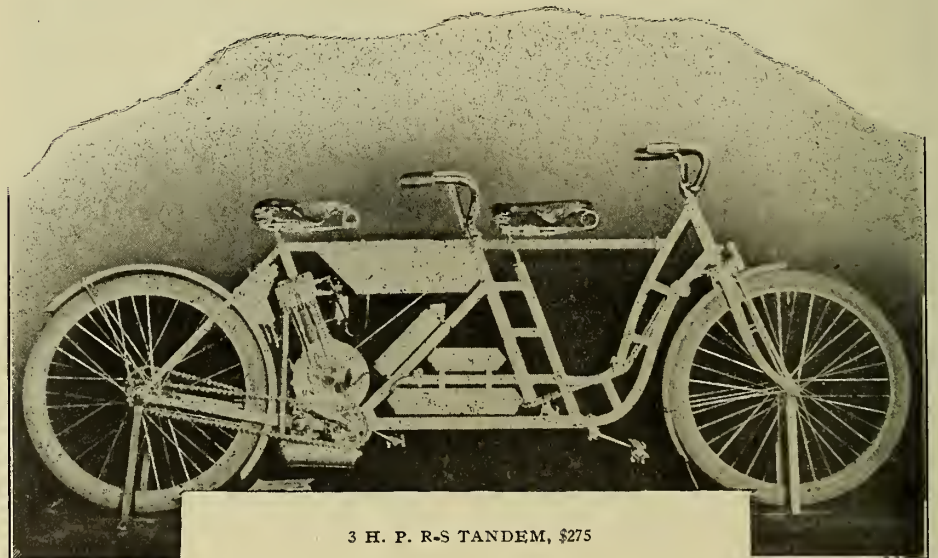
In the R-S exhibit, the 3 horsepower mechanically operated bicycle—which is the creation of Charles Gustafson—not un-

course, come into contact with the rockers at each revolution and thus open and close the valves. It is all as simple as can be. The lift rods are protected by dust caps.

The R-S carburetter, which one "green-horn" not inaptly described as resembling a pair of opera glasses, employs a twin float and a central draft, which are made necessary by the use of mechanical valves; each float is pierced by a small rod secured vertically within each float chamber and which insures that the floats not only will



3 H. P. R-S, \$225



3 H. P. R-S TANDEM, \$275

naturally occupied "the pride of place" and received the most attention. It bore out the good reports that had preceded it; it fairly bristles with features. The motor, $2\frac{15}{16} \times 3\frac{3}{4}$ inches, is well proportioned and is secured over the bottom bracket and forms the lower part of the seat mast. Both valves are located in the top of the head, each being operated by a two-piece lift rod, on the lower half of which is a rocker; each of the lifters are actuated by cams which, revolved by a train of three gears, of

retain a constant level under all conditions but also protects them from adhering to the sides of their chambers. In the central or air chamber is the screened opening, through which hot air is taken from the chamber, and the spray nozzle. When the throttle is opened a cone-shaped tube is raised thus increasing the air supply but above the screened opening is an auxiliary air-shutter for the admission of cold air. This not only permits a wide range of mixture but the shutter acts as an accelerator

and is said to afford results akin to a double throttle.

The lubricating system, which is of the oil-from-the-seat type, is an ingenious device secured to the under-side of the rear fork stays within easy reach from the saddle. Turning a small lever in one direction closes the feed valve in the tank and opens the oil cup and discharges the oil into the cylinders; turning the lever in the opposite direction closes the cup and opens the feed valve, which, of course, refills the cup. Always there is a measure of oil ready for instant use.

The muffler, another of the R-S big innovations, is of the usual cylindrical shape and employs three tubular strainers, the

be similar to the 3 horsepower machine of the R-S line.

The Yale-California.

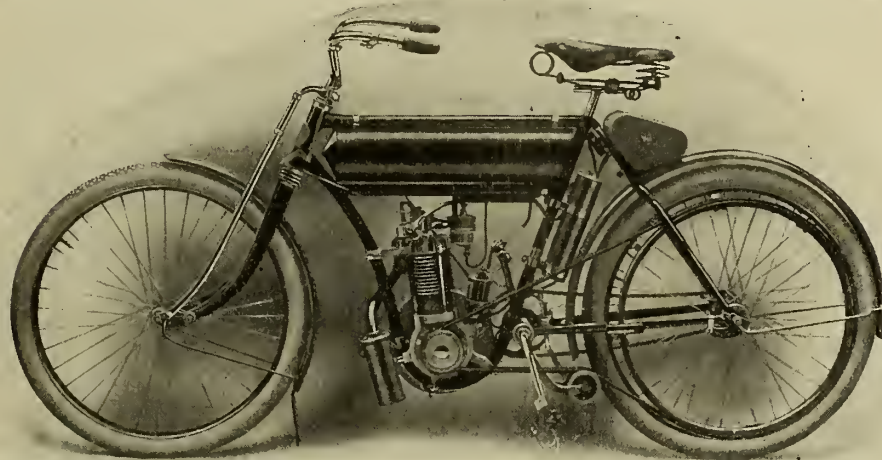
Although they suffered in the allotment of space by being stowed in one corner of the big building and distant from "motorcycle row," the Consolidated Mfg. Co., with the 2 horsepower Yale-California, received their meed of notice. As one of the machines which has "made good" and which during the year has undergone further refinement, it is not to be passed in the reckoning of the man intent on obtaining motorcycle value. It is even a better looking motor bicycle, too, the substitution of a round tank for a square one having added

and possibilities of the Yale facilities and workmanship. The same type of carburettor, but one with a larger float chamber, is employed; the grip control operating the throttle only will be retained but the means of control have been improved, a cam movement having been adopted which firmly holds the throttle in the exact position in which it is placed; needless to add, there has also been retained the form of throttle in which a port is opened when compression is relieved—a valuable feature which permits cold air to enter and cool the cylinder and working parts.

The new round tank has increased the capacity to 5½ quarts of gasoline and 1 quart, 1 pint of lubricating oil; the drip feed has been retained. The muffler has been considerably altered, disc strainers having been substituted for the perforated tubes previously used, and an almost silent exhaust has been thereby obtained.

The spring idler has been removed from the engine and is now attached to the rear frame. The idler rod has been made flat instead of round and has teeth instead of notches; a lever fitting into the teeth holds the idler securely and prevents it from slipping out of the segment into which it is placed, thus holding the belt to its work.

The rear frame construction has been slightly altered but it is the new cushioned spring fork which is described as a "real cushion" that is the 1907 feature of the bicycle proper. It comprises a truss formed of two tubes in each of which is enclosed a long—12-inch—helical spring which affords a range of flexibility that is not short of amazing; in the upper end of each tube is a recoil spring and a screw, turning which permits the fork to be adjusted to suit the individual wish or weight;



2 H. P. YALE-CALIFORNIA, \$185

whole being pierced from end to end by a ⅞-inch hole, which is left open, no cut-out being used, so quiet is it. The exhaust gas emerges from both ends.

The grip control comprises outside telescopic rods which connect near the grips with a small pinion gear which engages with the toothed end of a tube partly enclosed in the grip itself. The usual twist of the wrist operates the gearing and through them the spark and the throttle.

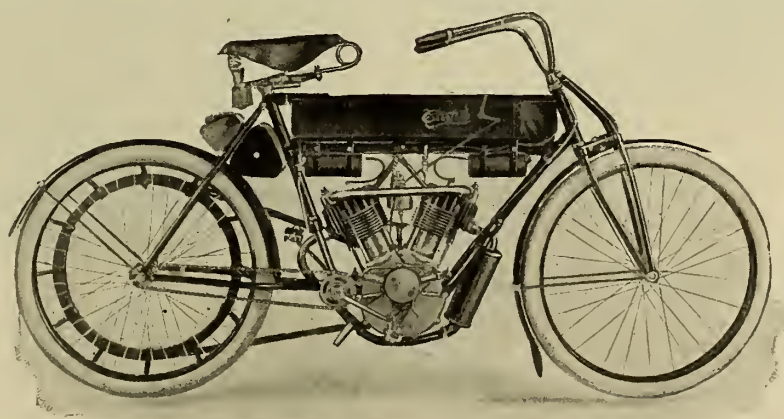
The battery box, which was designed to accommodate standard dry cells, is secured to the lower frame tube and comprises what may be termed two connecting compartments, two cells being stored in the lower and one in the upper. Half of the upper part of the box is detachable making the removal or replacement of cells a supremely simple operation. The securing of the contact screw in the commutator is one other item that the R-S people feature, the fibre block and a double lock nut being all that is employed to hold it firmly in place.

The R-S tandem, which is a double steerer with a wheel base of 74½ inches, employs all of these fittings and features and differs chiefly in the necessary distribution of the battery.

In the R-S motor bicycle with the 2¼ horsepower Thor motor, the engine, carburettor and muffler will be the only Thor components used. The frame and all else will

more to its appearance than might be imagined. While no radical alterations were found possible, the improvements made are not insignificant.

Although the proportions of the Yale motor, 2¾ x 3 inches, remain the same and



5 H. P. CURTISS, \$275

it will continue to be rated at 2 horsepower, there is more of that power in the motor than previously was the case, the process of refinement having brought with it greater efficiency; a remarkable one-piece drop-forged crankshaft which includes the counter-balance weights is not the least of the evidence to that end; a detached specimen of it was exhibited and was in the nature of emphatic evidence of the quality

the cushioned truss is hinged to the main fork by a supplementary fork end.

The Curtiss.

In the Curtiss, their deserving makers, the G. H. Curtiss Mfg. Co., have centered attention on increase of power and engine efficiency, particularly in respect to their 5 horsepower double cylinder model which has been kept in the fore front rather to

the detriment of their $2\frac{1}{2}$ horsepower single cylinder, which is a wonderfully powerful little machine; one of each type was exhibited. The proportions of the Curtiss "double" have been increased from 3 by $3\frac{1}{4}$ inches to $3\frac{1}{4}$ by $3\frac{1}{4}$ and with the valve heads now cut at an angle of 30 degrees, instead of 45 degrees, as previously, not only has power been added but a quicker release and more certain action has been obtained. A steel pulley instead of a cast-iron one, heavier rocker arm lugs, a one-piece exhaust valve lift rod and holes drilled in the head flanges of the motor—the latter to increase the cooling capacity—are the other engine refinements. A brass lock nut to further insure the tightness of the commutator and a brazed handle bar clamp instead of a split one, are other refinements.

The Simplex.

The Simplex is the production of the Prospect Motor Mfg. Co., Brooklyn, N. Y., who after local service, now are reaching out for general patronage; it employs a 5 horsepower two cylinder imported motor of French manufacture. Two models, a 110-pound racer and a roadster, were shown. Each has a truss frame and carries the motor in a loop, is driven by a V-shaped belt and is built low, 26-inch wheels with $2\frac{1}{2}$ inch tires being used. One of the machines staged was equipped with dry cell ignition, the other with gear-encased Simms-Bosch magneto. On the roadster, a Bowden wire grip control operating the valve lifter only is employed but a band brake on the rear wheel ingeniously operated by back pedaling and a remarkable tank, are the features of the Simplex. The tank is a big square receptacle occupying every inch of the space between the upper frame tube and the truss tube; it is divided into three parts—one holding two gallons of gasoline, another one quart of oil, while the third best may be described as a "pantry": it has compartments for tools and spare inner tubes and a little drawer for extra parts and what-not. The oil pump is located in the oil division of the tank and is operated in plain sight from the saddle.

The Wagner.

In the 3 horsepower Wagner, engine efficiency has been heightened by a higher lift of the intake valve, which increases the admission of gas, and by cutting both front and rear belt pulleys at the same angle. Appearance also has been improved by the substitution of a six-quart copper tank having rounded sides for the perfectly square one of galvanized iron. A new single grip control operating the spark only, is, however, the most observable change in the Wagner. Previously it was affixed to the handle bar stem; now it is independent of it, being secured to a base bolted on the upper frame tube.

The Reliance.

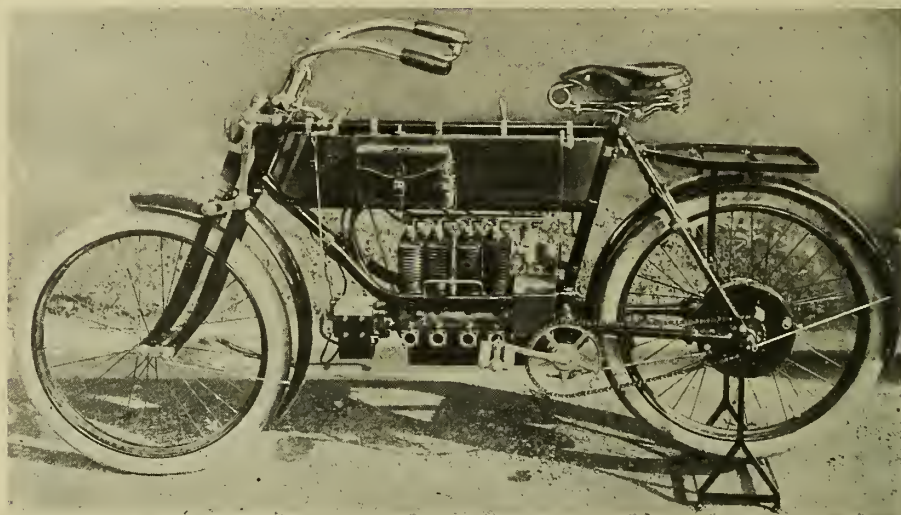
The Reliance, which now is being made in Elmira, N. Y., the Reliance Motorcycle

Co. having completed its removal from Addison, is marked by a larger and more powerful engine, the proportions having been increased to 3 by 3 inches, increasing its rating from 2 to $2\frac{1}{2}$ horsepower; phosphor bronze bearings are now being used throughout. The rear frame construction has been slightly altered, lengthening the wheel base to 55 inches. A new and heavier waterproof belt also is among the 1907 im-

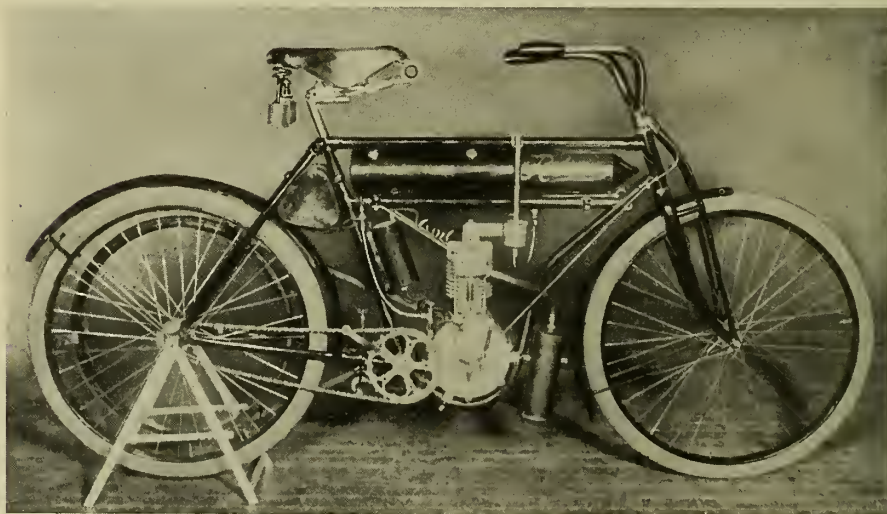
Consolidated Mfg. Co., Toledo, Ohio.—Two single-cylinder Yale-California motor bicycles.

Curtiss Mfg. Co., G. H., Hammondsport, N. Y.—One single cylinder and one two cylinder Curtiss motor bicycles.

Hendee Mfg. Co., Springfield, Mass.—One single cylinder Indian motor bicycle; one single cylinder tricar and one single cylinder delivery van.



4½ H. P. F. N., \$350.



2½ H. P. RELIANCE, \$175

provements. The truss frame, with the motor carried in a loop in front of the crank hanger, is retained.

The M-M also was exhibited. It is characterized by an even bigger engine than previously was used and which is rated at 4 horsepower; a truss frame and a new tank are the other most noticeable innovations.

The Thor components, including the improved carburetter, muffler, grip control, battery box, etc., likewise were in evidence.

The following is the summary of exhibits and exhibitors:

Lyons & Co., New York City—Two single cylinder Wagner motor bicycles.

Miner, J. L., New York City—One single cylinder Reliance motor bicycle.

Ovington Motor Co., New York City—One four cylinder F. N. motor bicycle.

Prospect Motor Mfg. Co., Brooklyn, N. Y.—Two two cylinder Simplex motor bicycles.

Reading Standard Cycle Mfg. Co., Reading, Pa.—Three single cylinder R-S motor bicycles and one single cylinder tandem.

American Motor Co., Brockton, Mass.—Two single cylinder M-M motor bicycles.

Aurora Automatic Machinery Co., Aurora, Ill.—Thor motors and fittings.

SNAPSHOTS OF THE YANKEE GLOBE GIRDLER



1. TYPICAL IRISH COTTAGE
3. SCENE IN IRELAND

2. DERWENTWATER ROAD
4. BURNS'S COTTAGE

Stratford-on-Avon, England, Nov. 10.—Cycling in the midland district of England is delightful, the roads being smooth and level, the scenery pleasing to the eye, and fortunately the weather has been fairly good. We have been to Kenilworth, where is located the ruined castle which Scott has made famous in his novel, "Kenilworth." We have been to Warwick—another Scott town, where the great castle is. At Warwick one passes under huge gates or arches, when entering or leaving the city. And now we are in Stratford-upon-Avon—Shakespeare's town. Here is much to be seen—the place where the poet was born, the grammar school where he learned his lessons, the cottage where lived his sweetheart, Ann Hathaway, the Five Gables, an

inn where he was wont to linger, the church wherein he lies at rest.

The British slowness—conservatism, if you will, has been the cause of much delay to us, including the matter of photographs. It is almost impossible to get them developed in less than two weeks, and sometimes this is considered quite short notice. That is the reason that we give our readers herewith a number of pictures which should have come along before—but which we hope will be none the less interesting.

"The Derwentwater Road" is considered to be one of the finest, if not the finest, road in England. It runs along Lake Derwent, or Derwentwater, as the combination is called, and is certainly pretty, but we think the east coast in Ireland is preferable

from a scenic view point as well as road-bed.

"Burns's Cottage," is the little cottage in Ayrshire, Scotland, where Robert Burns lived as a child. It differs not much from any other thatched cottage—but is, of course, of greater interest than the average.

The way in which some Irish people live, is indicated by our other pictures—one of them a scene upon the northern coast of Erin, showing, besides a group of Irish children, one of the stone huts which abound there. The signpost in the distance bears an inscription which may be misleading—for Irish miles are not English or American miles. If we may be pardoned for the "Irish bull," there are more miles in a mile in Ireland than in England. The

little white cottage is an example of the better class of cottages in Ireland. It is extremely picturesque, extremely clean and extremely small. We stopped there one morning to get a drink of milk, having made a long run along the coast before breakfast. The old lady who lived there handed us two big bowls of lacteal liquid and in exchange we gave her several coppers. The exchange pleased both parties to the transaction. GEO. E. HOLT.

How the Police Prevent Cycle Theft.

So much is heard from time to time of the depredations of bicycle thieves and the inefficiency of the average police force in tracking them down and recovering the property that an instance of the opposite nature is at once surprising and delightful. In this respect at least, the officers of the Port Huron, Mich., force are above the traditions of their profession, for not content with watching for evil-disposed persons, they keep an eye out for those who are likely to tempt their cupidity by leaving their bicycles about in exposed positions. Whenever they come upon a machine left in this way, they gather it into the fold and hold it until claimed by its rightful owner, who is obliged to prove ownership before he can regain possession of it. On Wednesday, November 28th, for instance, their harvest was eight machines which were left in different places about the city, and which they exposed for identification in the corridor of the city hall. The average daily harvest is six machines.

Pros Among the Cork Pullers.

The Prospect Park Cork Pullers held their weekly "bung-starter" last Sunday on the Brooklyn boulevards but it did not turn out very successfully. The Cork Pullers had got wind that several professional six-day riders intended coming out to take their measures, so when Root, Fogler, Bardgett and Vanderstuyft came along the amateurs were ready for them. The scorch went about twenty miles and finished when Fogler trounced every one of them. Root was put out with a twisted chain, Bardgett lost his cork somewhere between Prospect Park and next week and Vanderstuyft has not been around since.

Holt to Globe Girdle Alone.

Lester R. Creutz, who with George E. Holt, started last summer to criss-cross the Eastern hemisphere on bicycles, has decided that he has had enough of globe girdling and will return to his home in Illinois. Holt, the smaller of the pair, will, however, continue the "go-as-you-please" trip around the world as originally planned, but will perforce go it alone and continue to tell the story of his travels in the *Bicycling World*.

"Motorcycles and How to Manage Them." Price, 50 cents. The *Bicycling World* Co. 154 Nassau Street, New York City.

Team Race Excited Hicksville.

On account of the high wind few of the Brooklyn riders that had entered put in an appearance at the Thanksgiving day races of the Hicksville (L. I.) Athletic Club but the close finishes that resulted kept the thousand spectators keyed up to the hand-clapping stage. In the quarter-mile handicap, Jerome Steinert, the local club's representative, who started from scratch, "pulled the cork" of L. R. Reynolds, one of the Prospect Park Cork Pullers, a 20-yard marker. Steinert got away to a good start and passed Reynolds, then leading, about fifty yards from the tape. Fuessel got third.

The one mile handicap resulted in a blanket finish, inches only separating the first three men to cross the tape. L. Brand and Tony Marzdillo of the Hicksville A. C., who started from, respectively, the 50 and 65 yard marks, set a hard pace from the start, but they were overhauled by Reynolds after more than half the distance had been covered and then by the scratch men, Braczik and Steinert. After tagging the limit men, Reynolds went in front with the honor men in positions on each side of his rear wheel. He began to unwind at the three-quarter pole but succumbed at the last eighth and Braczik and Steinert went by with a rush, the former finishing six inches ahead of Steinert. Reynolds came back with a spurt and finished third.

The half hour team race for club members only, was exciting to a great degree. For the first fifteen minutes of riding three teams were tied for first place but after that Braun and Steinert, by judiciously "swapping" pace and sprinting at opportune moments, gained two laps, and won the race after covering 99 laps, one lap short of ten miles. Fuessel and Marzdillo finished second and covered 97 laps in the thirty minutes and Herzog and Dave Steinert had 95 laps to their credit when the race was stopped.

The "bone-shaker" race that was to be, did not develop, as the committee that was appointed to collect all the old ordinaries in the district could not secure enough bicycles.

Delling Does Fast Work Indoors.

Edward Delling's brilliant riding in the one mile handicap at the first of the season's games in the Seventy-fourth Regiment armory at Buffalo, N. Y., last Saturday night, 1st inst., was the feature of the meet. Riding against such men as Whitelock, the 74th Regiment crack; Schudt, Tanner and McCracken in the final, Delling, after being second last in the seventh lap, extracted himself from a pocket, took the lead and then unwound such a sprint that he caught Tanner, who was leading by at least 30 yards, and won hands down in the fastest time made this season in a final, 2:18 $\frac{3}{4}$. Tanner, of course, was second with Schudt a very close third. Whitelock was three back of Schudt at the finish. White-

lock, although he had captured his heat, the second, showed poor form in the final. His time was better, though, than in the final, it being 2:17 $\frac{3}{4}$.

J. Schieder, on account of his handicap of 80 yards, won out over the good riders, most of whom fell, in the final of the two mile bicycle handicap. E. Arenz, another big man with a big handicap, 110 yards, got second, and C. E. Mortimer rolled in a poor third.

George Cameron, the New York crack, tried to dehorn the Elks but seemed to lack that essential—speed. In truth, Cameron got what every visiting bicycle rider except one—Billy Franks—has gotten that even went to Buffalo, that is, a severe drubbing. Summary:

One mile handicap—First heat won by Fred Schudt; second, R. J. Hoover; third, C. E. Mortimer. Second heat won by W. W. Whitelock; second, W. E. Bauman; third, H. J. Young. Third heat won by J. M. Tanner; second, A. Fischer; third, Jos. Gittere. Final heat won by Delling; second, Tanner; third, F. Schudt. Time, 2:18 $\frac{3}{4}$.

Two mile handicap—Qualifants: C. G. Mortimer (150 yards); J. M. Tanner (scratch), Jos. Gittere (140 yards), Fred Schudt (scratch), W. W. Whitelock (scratch), George Kifer (145 yards), J. Steglemeier (90 yards), J. Schneider (80 yards), R. Souter (140 yards), and W. Martin (130 yards). Final heat won by Scheider; second, E. Arenz; third, Mortimer. Time, 4:34 $\frac{1}{2}$.

Weintz Wins Armory Race.

Louis J. Weintz was the largest winner at the regular games of the Eighth Regiment, held in its armory on Monday night, 3rd inst. The first event was a mile handicap with six starters and soon after getting away Vanden Dries fell. Weintz and Cameron were both on scratch but Cameron did not hang on and was beaten by Weintz by about 30 yards. F. Elliot Adams finished first from 20 yards, and only beat Weintz by five inches. Time, 2:35. In the two mile handicap it was announced that Cameron would try and break the record from scratch. Cameron finished third, several seconds short of the record, and as he has not been a member of the regiment for 30 days, his points were not allowed to count, and third place was given to C. A. Frommeyer. Weintz captured first from scratch, beating Adams, who had 30 yards, by more than an open length. Time, 5:08.

Besides being a bicycle rider, Hardy K. Downing is a ten pin expert. Prior to last week he had two ambitions in life. One was to roll a perfect score in bowling and the other to win the six-day bicycle race. He attained one last Saturday when he rolled 300, the highest possible score, in bowling, and the other—well, he has an idea that he will get that during the week of December 10th to 15th.

Iver Johnson Truss Frame Bicycle

The 1907 Models represent our best effort in cycle building. They reflect in the highest degree our twenty-four years' experience in manufacturing standard high-grade Bicycles. Models, Prices and Catalogue now ready.



The IVER JOHNSON Truss Frame gives the high-grade bicycle individuality. It makes the strongest bicycle frame built. It constitutes the strongest selling feature to be found in a bicycle. It is practical, strong, distinctive and scientific.

IVER JOHNSON'S ARMS & CYCLE WORKS

Factory and General Sales Office, FITCHBURG, MASS.

New York Office: 99 Chambers Street.

Baker & Hamilton, Pacific Coast Distributors.

Gendron Bicycles

are the matured product of twenty years of continuous improvement and painstaking workmanship. Their worth is real. Their general appearance, style and finish is unexcelled. In perfection of bearings they are unapproached.

Apply for their sale now before your neighbor gets it.

1907 CATALOGUE NOW READY

GENDRON WHEEL COMPANY, = = Toledo, Ohio

NEW ROADS IN RHODE ISLAND

Where the Improvements have been Made
and the Better Going for Cyclists
is to be Found.

Forty-five miles of macadamized roads will have been added to the improved highway system of Rhode Island when construction work is finished this year on the last of the contracts let by the State Board of Public Roads. The greater part of the work is already finished, and all except possibly one or two short stretches will be ready for travel when winter puts a stop to building operations and gives the motorcyclist a chance to really enjoy the use of his 1907 machine.

With only \$200,000 available for the year's work, exclusive of the special appropriation of \$25,000 secured to carry out improvements on two roads not included in the original scheme of State highways, the board had to consider carefully the needs of the situation in planning its work for the first year. The first consideration was to so arrange the scheme of construction as to harmonize with the development of the plans for a comprehensive system of State highways, while distributing the improvements where they were most needed. As a result of the year's work there is now a practically continuous road of the first class from Providence to Narragansett Pier, and from East Providence to Bristol Ferry. Progress has been made in the improvement of the post road between Narragansett Pier and Westerly and Ten Rod and Hope Valley roads. Next year, according to the plans of the board, will see the completion of a continuous macadamized highway from Providence, via the Pier, to Westerly, and back through Hopkinton, Richmond, Exter, West Greenwich, Coventry and Warwick. At the same time the needs of other localities have not been neglected.

Going south from Providence toward Narragansett Pier the first stretch of improved road begins at the Suburban Railroad crossing on Elmwood avenue in Cranston and extends to Hillsgrove in Warwick, where it joins the previously constructed State road. Another section has been built connecting the State road south from Saunderstown with the gravel construction road built by the district of Narragansett. A third stretch runs from the East Greenwich line south to join the town macadam in North Kingstown. The building of these three stretches of road gives a macadamized highway through to the Pier except for a distance of about three-quarters of a mile south from Hamilton, where there is a good gravel road.

Going west from the Pier, work is being done on the post road from the junction of the Matumuc road in South Kingstown

west to Perryville. At the other end the state road has been extended from its terminus in Westerly east two miles through the town of Charlestown. Next year these sections will be joined, making the post road a macadamized highway throughout its length.

In Hopkinton the State road is extended from Potter's Hill at the westerly line north to the Hope Valley road. The State road in Richmond has been extended southeast to the four corners at the Richmond Town Hall. In Exter the new macadam construction is extended west two miles from Exeter village on the Ten Rod road, which crosses the State from Wickford to the Connecticut line, and a mile and a half of the road running south to Liberty has been improved, beginning at the Ten Rod road.



NEW YORK BRANCH: 214-216 WEST 47TH ST.

From the previously built State road in West Greenwich construction has been continued north two miles into Coventry by Hungry Hill, and Mishnock swamp. The State road in Coventry has been advanced one mile farther toward Coventry Centre. All of this work from Hopkinton to Coventry is in sections of what when completed will offer bicyclists an alternative route from Providence to Westerly across the central part of the State.

On the eastern shore section of the Warren road, in East Providence, from the old macadam construction north to its junction with the Riverside road at the Pomham Club, has been improved. Two sections of the old town macadam in Barrington, between stretches of the State road, have been resurfaced, and a section has been built through Warren connecting with the improved roads north and south. The macadamizing of a section on the Bristol-Warren road in Bristol filled the last gap, and there is now a macadam road from the

Pomham Club to the old Bristol Ferry, while from East Providence to Pomham Club a good gravel road is maintained by the town.

A section of the Newport-Fall River road in Tiverton, between Tiverton Village and Pocasset Hill, has been completed. A section of 2½ miles north from the Stone bridge, in Portsmouth, on the East Maine road, and a section in Middletown, south from the Newport line to Two-Mile corner, on the same road, have nearly closed the gap in that highway. The Little Compton Tiverton road has been macadamized for two miles further north toward Windmill Hill, in Little Compton. The State road in Jamestown has been extended another mile north toward Conanicut Park.

Under the special appropriation macadam construction has been built on Waterman avenue, in East Providence, from Leonard's corner to the Massachusetts line at Luther's corner. In the town of Gloucester new macadam construction extends from the former end of the improved highway, at Absalona Hill, to Cheptchet, and is being farther extended for a mile on the Chepachet-Pascoag road. A mile and a quarter has been built in Burrillville, from the former construction on to Mohegan. In Cumberland the improvement of the Mendon road over Cumberland Hill has been pushed two miles farther south.

Smithfield has a new macadam road from Greenville to the Johnston line, and work is under way on an extension of the same road through Johnston and North Providence to the city line.

The Hartford road out of Providence has been improved over a section extending to the Johnston line, and farther west on the same road the contract has been let for a section in Foster, from Hopkin's Mills west one mile through South Foster. This is the only work the completion of which this fall seems doubtful. Several deep fills make construction difficult, and it is possible that only the preliminary grading will be finished this year. Another year's work will go far toward seeing completion in its main outlines of the system of State highways that is making Rhode Island one of the finest regions in America for bicycle riding.

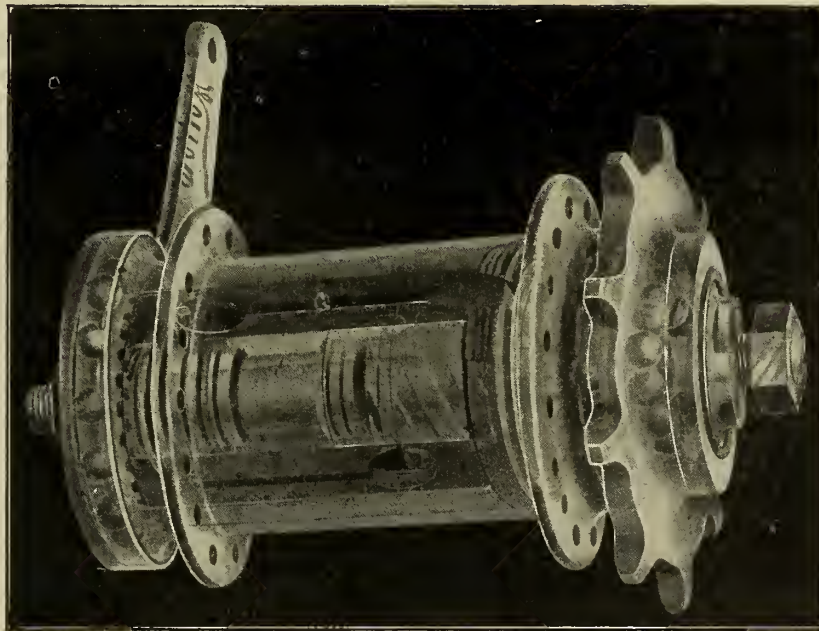
The Use of Pliers.

For those riders who persist in employing pliers in place of a wrench, the type in which the jaws are held parallel to one another at all times is especially to be recommended as they have less tendency to destroy the shape of the nut than the more ordinary kind. One of the most recent tool-bag accessories to be brought out abroad is a pair of so-called nut pliers, which are developed on exactly this principle. For ordinary purposes, however, the more common parallel pliers will answer every purpose, and frequently are more convenient to handle than a wrench.

It is well worth the while to

SPECIFY THE MORROW COASTER BRAKE

and to insist on getting it.



The first, the Morrow remains the foremost coaster brake—the one that combined cycling pleasure with personal safety. No invention has done more.

ECLIPSE MACHINE CO.,

Elmira, N. Y.

"Dead Broke" Johnson En Route Home.

Alex. Johnson, the Scandanavian "dead broke" tourist who, as told in a recent issue of the Bicycling World, left Bridgeport, Conn., on Sept. 26th, in the interest of one of the local papers, on the erstwhile popular mission of covering a certain distance in a given time and without funds, has reached Binghampton, N. Y., on the return trip. At Chicago, where he was last reported, he ran out of funds and while in that condition, went to the postoffice where he received a letter containing a check for \$264, which had been intended for another person of the same name. He returned it, however, and went on his way, investing his last two pennies in a couple

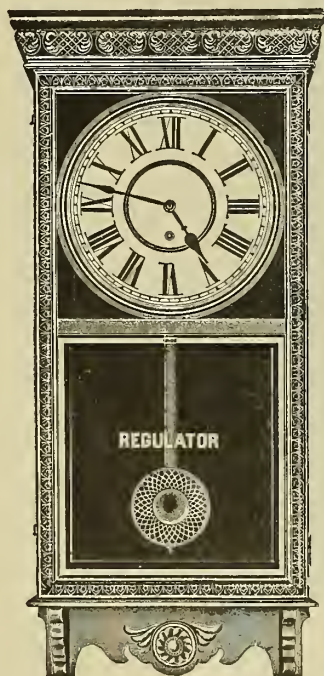
of crullers. At Binghampton, he appeared at one of the theaters and after giving an address upon the subject of his journey, succeeded in selling enough photographs of himself to guarantee him food and shelter for the remainder of the 3,000 miles which were conditioned upon the undertaking. Despite his hardship he reported in good physical condition.

We have something different in a
3-BAR BICYCLE
We can save you money on tires and sundries. New clean stock.
THE BECKLEY RALSTON CO.
80-82-84 Michigan Avenue. Chicago.

Walthour Wins Good-bye Race.

Before leaving France, Robert J. Walthour gave world's champion Louis Darragon another beating as a farewell shot. It happened at the Velodrome d'Hiver, Paris, on November 18th. The first heat was at a distance of 20 kilometres and the American pace follower had a walk-over, Darragon stopping. In the second heat, 30 kilometres, Walthour had an easy victory and beat the Frenchman by four and one-half laps. The time of the final heat was 15:48½ and the second was ridden in 24:21½. At the same meet Gabriel Poulain, ex-world's champion, and Thorwald Ellegaard, the present holder of the title, met in a match race and Poulain won.

Regulator Clock



GIVEN AWAY!

WE will make you a present of one of the splendid Regulator Clocks, shown on this page if you will send us 24 Neverleak Certificates. These clocks are over 3 ft. high, 16½ in. wide, case solid oak, 8 day movement, constructed of brass and steel and fully guaranteed. Any Brass Sign certificates you may have on hand or hereafter obtain through purchases of Neverleak, will be allowed to apply on the clock. One of these clocks will be an ornament to any office, shop or store. One certificate is enclosed with each dozen 4-ounce tubes of Neverleak. Twelve certificates will entitle you to a Brass Sign as heretofore.

**BUFFALO
SPECIALTY COMPANY,
BUFFALO, N. Y.**



Motorcycle for 1907

TWO MODELS

Single Cylinder, 2½ H. P., Weight, 125 lbs., Speed, 45 miles per hour, Price, \$200

Double Cylinder, 5 H. P., Weight, 150 lbs., Speed over 60 miles per hour, Price, \$275

1907 IMPROVEMENTS

Increased power, reinforced fuel tanks, unbreakable handle bars, perfected valve-lifting mechanism, 30 degree valve, hardened steel pulley. Transmission can't be improved.

CURTISS EXTRA'S

Curtiss Flexible Sidecar, combined luggage carrier and stand, spring truss forks, tandem attachment.

APPLY FOR THE AGENCY WITHOUT DELAY.

G. H. CURTISS MFG. CO., Hammondsport, N. Y.

PRODUCTS of our BICYCLE DEP'T

Frame Tubes

Fork Stems

Seat Masts

V and Flat Belt Rims for Motor Cycles

HANDLE BAR TUBING

MANUFACTURERS OF HIGH GRADE MATERIAL ONLY

Fork Sides

Rear Forks

Rear Stays

SEAT POSTS

THE STANDARD WELDING CO., CLEVELAND

THE BICYCLING WORLD and MOTORCYCLE REVIEW

FOUNDED 1877

Volume LIV.

New York, U. S. A., Saturday, December 15, 1906.

No. 12

JOBBER'S FRAME A GUARANTEE

It Applies to Tires Only and Expires with the Calendar—Situation that Seems to be Created.

Although apparently it has been rather quiet since its organization at Atlantic City, appearances have been deceitful in the case of the National Association of Bicycle Jobbers. F. I. Willis, the secretary, has been very much alive and as a result there now are more than 50 members on the roll. One of the first fruits of the association has been the promulgation of a tire guarantee, which will be included in nearly all of the jobbers' 1907 catalogues, most of the jobbers marketing a "splendid brand" tire under their own names. The guarantee which thus is being disseminated is as follows:

All guaranteed tires are so mentioned in our catalogue. The makers of guaranteed tires agree to repair or replace without charge tires which in their judgment are defective in material or workmanship.

All guarantees, unless otherwise mentioned, expire on December 31st of the year in which the tires are sold.

All tires for replacement must be sent to the maker whose name appears on the tire.

Express charges on tires must be prepaid in every instance, or package will not be accepted from the transportation company. If return by registered mail is desired, postage at the rate of one cent per ounce must accompany the request for repairs, and eight cents addition for registry.

Rim cut, punctured, or tires abused or misused or worn out in service will not be replaced.

Always write a separate letter and send by mail with your instructions, as all packages are held awaiting this advice.

See that every package sent has your full address (name, town, street number or county and state) securely fastened to it.

In effect, this guarantee shifts a part of the burden from the jobber to the dealer. As the jobbers trade only with dealers, a

guarantee expiring with the calendar year would seem to put it up to the dealers to warrant all tires they may carry from the old year into the new one.

The Demand for Coaster Brakes.

"Just about three times greater than it was at this time last year," was the reply of Ralph D. Webster, secretary of the Eclipse Machine Co., to the "How's business?" query when it was put to him yesterday in New York. "It may mean that orders for Morrows are coming in earlier than usual and that next season's business may not show a three-fold increase," he continued, "but at any rate, that's the situation with us as it is to-day." Webster also let it be known that the Eclipse Machine Co. intends to push its motorcycle brake more aggressively than ever and also to add a front hub to match it.

Ballew Becomes Miami's Manager.

C. H. Ballew, a consulting engineer of no little eminence, has assumed the office of general manager of the Miami Cycle & Mfg. Co., Middletown, Ohio, and already has applied himself to increasing the production of the factory and to such good purpose that a doubling of the output of Racycles is announced. Several new buildings will be erected to further the movement, among them a foundry in which drop forged parts of the Racycle will be made.

Cronin in Change of Branch.

William Cronin has been appointed manager of the Boston branch of the Diamond Rubber Co., succeeding Joseph Bennett. Cronin is no stranger to the tires having been in the Diamond service for some time.

Flagg Made Shelby Manager.

H. A. Flagg has been appointed Eastern sales manager of the Shelby Steel Tube Co., with headquarters in New York. He succeeds R. R. Harris, who has gone with the Seamless Tube Co. of America.

WHAT THE CENSUS DISCLOSES

Federal Figures Relating to the Cycle Industry—Five Years Involved Covers the Depression Period.

According to the United States Census of the bicycle industry for 1905, the decrease in the value of the products, which in 1900 was reported to amount to \$31,915,908, whereas in 1905 it is reported as only amounting to \$5,153,240, in addition to which, however, bicycles, bicycle parts and attachments to the value of \$575,959 were turned out by establishments engaged primarily in the manufacture of other products.

The figures apply to the long period of depression from which the industry has been slowly emerging and naturally they are not rose hued nor do they make relishable reading.

The total number of bicycles turned out in 1900 was 1,113,039 at \$22,160,260, whilst for 1905 the number was only 227,604 at \$3,557,635. This again is subdivided so as to show that there has been a decrease in the number of chainless wheels manufactured from 41,899 at \$1,893,821 to 3,675 at \$118,016, of chain from 1,067,524 at \$20,031,600 to 221,528 at \$3,081,206, in tandem from 3,457 at \$201,889 to 106 at \$4,283, and the only place where an improvement in conditions is shown is in the manufacturing of motorcycles in which there has been an increase from 159 at \$32,950 in 1900 to 2,295 at \$354,130 in 1905.

The number of toy tricycles manufactured in 1900 was reported as amounting to 18,110 at \$47,985, and for 1905 the number has fallen to 4,063 at \$33,560. It is rather peculiar to note that the figures for 1900 only show an average value of \$2.64 to a tricycle, while those for 1905 show an average value of \$8.25 for each of these children's

play things. In addition to the items already named there were other products turned out by these factories in 1900 to the value of \$9,707,663, and this also shows a decrease to \$1,562,045 in 1905.

As far back as 1880, no records were shown in the census reports for the bicycle and tricycle industries, but when 1890 came around it was reported that there was in the United States a total of 27 plants with capital amounting in all to \$2,058,072; when 1900 returns were in, in the heyday of the industry it was shown that there had been an increase in the number of establishments to 312 at \$29,783,649.

In 1890 there were on the pay rolls 128 salaried officials, clerks, etc., to whom was paid \$123,714, and in addition thereto, 1,797 wage earners receiving \$982,014, of the latter number 1,747 were men, 15 women and 35 children under sixteen years of age. The miscellaneous expense for that year was reported at \$242,018, and the cost of materials used at \$718,849, while the value of the output was reported at \$2,568,326.

In 1900 the number of salaried officials, clerks, etc., had been increased to 2,034 at \$1,753,235, and the number of wage-earners to 17,525 receiving \$8,189,817, and of that number 16,700 were men, 517 women, and 308 children; miscellaneous expense was reported at \$2,252,604, the cost of materials used at \$16,792,051, and the value of the output at \$31,915,908.

In 1905 the number of factories had been reduced to 101 and the capital to \$5,883,458, the number of salaried officials and clerks had been reduced to 361 receiving \$350,798, and the number of wage earners showed a cut to 3,319 at \$1,971,403, of the latter 3,298 were men, 7 women, and 14 children; miscellaneous expense had been reduced to \$574,655, cost of materials to \$2,628,146 and the value of the output to \$5,153,240.

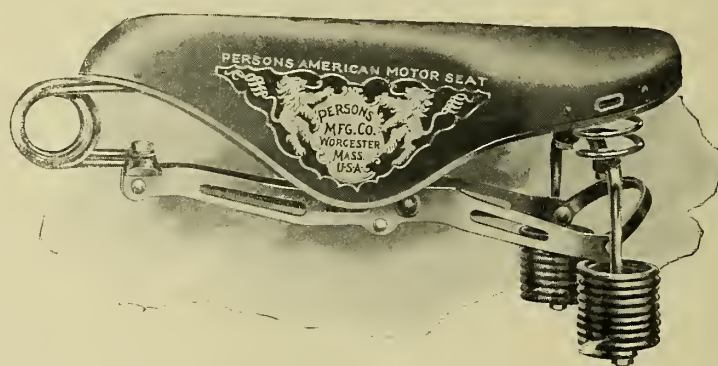
To Make Two Motorcycle Tires.

The Goodyear Tire & Rubber Co. have decided to produce their mechanically fastened motorcycle tire in two weights and at two prices, instead of one, as was the original intention. The heavier and higher priced tire will be made with three plies of close woven Sea Island cotton and will, the Goodyear people maintain, afford durability scarcely dreamed of by motorcyclists. The other, styled the Roadster, will be a four-ply thread fabric tire and will, they say, contain better material and give better service than even any motor tandem tire ever produced. The steel rim, including the locking rings, will be sold separately, when desired, at \$2.25 each. The Goodyear Co. are likewise going after the trade in motorcycle inner tubes and are making one 28 by 2 1/4 inches which is of the same quality as their automobile tires and 10 per cent heavier and 25 per cent thicker than tubes heretofore offered for motorcycle use, the prices on them are quite favorable.

Improvement in the Persons.

The Persons 1907 motorcycle saddle—not longer styled the "Persons Royal" but now the "Persons American Motor Seat"—has made its appearance and bears out the refining effort and superb quality that ever has marked the Persons productions.

The principal improvement is in the structural design, rather than in action of mechanism, the first being suggested by conditions developing during the season but which the makers say in no way disproved their claim that in action this seat represented the nearest approach to perfection. Originally the motor seat was designed with the top level and to be ridden level, which would retain the compound



springs in the rear in a vertical position; and it was only when in a vertical position that these springs would carry their share of the load and do their work. The tendency of the season among the riders, however, was to place the saddle as far back and as low down as the mud guard or the gasoline tank would permit, and this, perforce, caused an elevation of the peak of the saddle above the cantle of from two to three inches. Thus the compound springs were thrown from their vertical line to from ten to thirty degrees variation, and, with each degree, lost some of the effectiveness their makers had given them.

It was to checkmate the results of this extreme tilting of the saddle that The Persons Manufacturing Company, Worcester, Mass., undertook a series of experiments which have resulted in a seat the peak of which is considerably higher than the cantle, and the compound springs of which are vertical and will always be found directly under the saddle cantle. This result is gained through the girder brackets forward of the clamp making an upwardly run of five-eighths of an inch before reaching the front spring, while back of the clamp they make a longer and steeper downwardly run to the extension springs. The result is a saddle much closer built than even appears in the cut and one with which the rider can get very close to his work.

The Smiles at the Show.

At least two men had quite a quota of fun in connection with the hard work attendant on the Grand Central Palace show in New

York last week. F. A. Baker, of F. A. Baker & Co., New York agents for Yales and Indians, was one of them; G. W. Sherman, in charge of the R-S exhibit, was the other. As an advertising dodge Baker gave away thousands of a "mule barometer" in which the tail of the mule records the weather conditions; the manner in which it does so never failed to interest those to whom barometers were given, and it probably caused more broad smiles than anything else in the big show.

The Bicycling World previously had stated that the Reading Standard people had discovered a "drinkable lubricating oil" of which they would dispense samples. Sherman says the number who called for

samples convinced him that the Bicycling World is a pretty closely read publication. When the "sample" was drawn from an R-S motorcycle tank into a glass, the "sampler" usually sniffed and smelled suspiciously, placed the glass to his lips in skeptical fashion and either swallowed the stuff in a hurried gulp or tasted of it mincingly. Then he usually grinned. The "oil" as it was styled, tasted mightily like sherry and left a glowing feeling within. It was, however, styled "Reading Standard oil," to distinguish it from a tank of truly standard oil.

Knocks in the Motor.

A knock in the motor, like a knock on the door, is something which requires immediate investigation. Sometimes it may come from a most trivial and insignificant source, sometimes its cause is of more vital importance. One of the most mysterious of them all arises from a loose fly-wheel, and may exist even when a most rigid investigation fails to reveal any apparent play. The shocks due to the explosion of the gas in the cylinder are, of course, very severe, and when in the course of a long life the keys or bolts which serve to keep the fly-wheel from turning independently on the crankshaft becomes worn they will permit a very slight relative rotation between the two without at the same time developing any appreciable looseness in the direction of the axis. The difficulty is not serious when this is the case, but if allowed to continue, may develop into something of a more important nature.

LITTLE NEWNESS AT STANLEY SHOW

Variable Speed Gears Again the Feature,
One of them Affording Infinite Change
Proving Sensational.

From November 23 to December 1, the doors of Agricultural Hall, London, were thrown open to the historic Stanley Show of bicycles, motorcycles and parts. It was the thirtieth show in twenty-eight years, two changes of date in the annual function having brought about two shows each in the years 1878-9 and 1891-2. Broadly speaking, it was the same Stanley as has held the boards for the last decade—the same firms exhibiting for the most part, the same crowds attending, the same wares exhibited and the same interest displayed. Closer inspection revealed this amount of difference, however, that many of the firms had undergone considerable reorganization, a few having disappeared altogether to be replaced by a few newcomers, while still others had altered in name without materially changing their status in other respects; that whereas a decade ago, the attendance was largely made up of enthusiastic riders, now it is made up largely of enthusiastic agents, the decrease in the one class having been so counterbalanced by the increase of the other that the grand total remains nearly a constant; that despite the contrary impression, many changes have been made in the construction of the machines, these alterations, however, being for the most part of a minor nature, yet without embodying sweeping changes in design; and that while the interest at the earlier shows was largely in the way of curiosity as to what was being done in the way of novelty and innovation, now the interest largely centers about the business side of the industry.

In all there were three hundred individual exhibits, some of which, however, were shown by firms holding several spaces in different parts of the hall, so that the total of exhibitors fell somewhat inside this number. As in former years, a limited number of small automobiles were shown, and this, coupled with the fact that quite a number of the makers showed only motorcycles of one sort or another, together with the large array of sundries and parts, served to reduce the actual display of bicycles to a small complement of its former grandeur.

Emphasizing last year's show, the variable gear contingent developed added vigor and came out in force. Nearly every maker exhibiting some sort of variable gear either in regular stock form or as an option, and many of them staged original devices. There were two and three speed gears galore, coaster brakes in good proportion, though the independent rim brake still holds its own bravely, and in one instance

was to be seen a novelty in the shape of a newly designed variable speed gear in which the ranges of speed were alterable at the will of the rider through a limited range of twenty per cent. from the solid gear, without the use of any regular steps. In this, as in other branches of the field, the changes in design were for the most part of a minor nature and confined only to such details as had demanded improvement in the one or two years of service which they had seen already.

The All-Speed Gear Company, staging the infinitely variable gear referred to, naturally drew considerable attention. The device which is entirely new this year, has been tried on the road for a sufficient length of time to prove all its qualities thoroughly, it is said, and in consequence, is vouched for as being thoroughly reliable, although still an unknown quantity in the trade. In principle it is of the ordinary sun and planet construction, mounted within the rear hub in the usual fashion and controlled by a threaded contrivance carried in one of the handle bar grips. There are four planet pinions revolving about a common sun gear, the latter being fixed to the hub and turning with it. Each of the smaller gears constitutes a one way clutch which is actuated by a stud mounted in a short lever, governed in turn by a cam, made concentric or eccentric by the movement of the grip control, and accordingly regulating the drive. In reality, it is a four-speed gear, the infinite variations in speed being obtained by slightly slipping the four little clutches as the grip is turned.

Another new hub brake is brought out in two models known as I and II, by the Birmingham Small Arms Company, the well known and enormous makers of components. In the first of the two, the gear changes are accomplished by means of a sliding cage which alters the relative position of the pinions. In the other the gears are constantly in mesh and the speed changes are affected by an eccentric arrangement. Both types have the common advantage of having no internally toothed gears, the differential action being obtained in each case by the use of stepped pinions.

In a new type of New Departure hub brakes which Brown Brothers have brought out, there are three braking rings—the only hub so equipped in the show, it was claimed, while in the motorcycle model of the same mark, there are double the number. Of the numerous other devices of the same kind, few displayed any novel features which had not already been staged in previous years, and many were of a cumbersome nature and unnecessarily complicated. The feature of external actuation by small levers, frequently swinging over a notched quadrant, which has been characteristic of English speed gears in the past, still is retained in the majority of instances; the grip control being brought into service in only one or two notable exceptions.

Chainless models still are a rarity, the one or two exceptions to the rule still being displayed ostentatiously by their makers and considered as more or less of a curiosity by the public at large. In the matter of driving gears, however, this much of change was noticeable, that a larger number of makers were fitting gear cases to their chain driven types, the use of the oil bath being more predominant than ever before.

There is a general leaning toward the spring frame with the pedal driven mounts, and this, together with a desire to get away from the beaten track in the matter of frame design in general, served to produce a number of results which were weird to look upon, and if not a retrograde over the simple diamond formation, certainly displayed no marked advance over it in point of beauty. This tendency proved to be particularly strong with the makers of ladies' wheels, the structure of the drop frame still remaining in a tentative condition apparently. Sloping top tubes, which are reported to be particularly in favor in the British Colonies, were frequently to be seen with their short head tubes and air of extemporaneousness.

Of all the curious looking apparitions staged in the way of resilient frames, not a few of which displayed novelty if not beauty in the formation of their front forks, probably the plum for eccentricity should have been awarded to the Sceptor, which the Sceptor Cycle Co., Ltd., of Northampton, presented for the first time. In place of the usual pair of forks leading from the crown to the front wheel, this machine was equipped with two pairs, one replacing the ordinary pair, but of smaller size, leading to a joint at the lower end of the head tube where the ordinary crown was replaced by a special fitting carrying the joint, and the other leading to a point some eight inches or so in front of it, where they were hinged to a short length of tube running fore and aft of the machine, and terminating in a T-fitting to which they were articulated. From this point a third pair of tubes led to the upper end of the head tube, thus forming a complete double truss in form, but elastic in nature. The elasticity was gained by means of a spring and plunger mounted within the short horizontal tube, mentioned, which was thus made extensible and yielding to any shock upon the wheel.

In the construction of the more important though less striking features of the machine, there seemed to be little change. Bearings, frame joints, sizes of tubing employed, and methods of reinforcement, if altered in any way, were not featured, and as a result of the almost complete standardization in these particulars which has taken place, the makers were given to dwelling more on the finish and manner of striping the frames than upon the actual metal they contained or the manner in which it had been developed.

The Dealers Who Pinned their Faith to National Bicycles

in 1906

were the men who did business on

"THE SUNNY SIDE OF EASY STREET"

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THE BICYCLING WORLD and MOTORCYCLE REVIEW

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NEW YORK, DECEMBER 15, 1906.

"Please continue my subscription for the Bicycling World. I enjoy every issue."—A. V. Hart, Akron, Ohio.

Making Game of the Law.

Experience is a wise teacher. When it has taught that a motorcycle race on the road cannot be run with safety during the midnight hours, it would seem that ambition and every other form of self-interest should bow to common sense and common prudence.

Apparently this sort of thing has no weight with what is left of the Associated Cycling Clubs of New York. In the face of last year's experience their determination to again include an event for motorcyclists in the New Year's midnight race to Tarrytown is a gross defiance of common prudence and the common law, which permits of neither palliation nor sympathy and which calls for action on the part of the legal authorities. When three machines are smashed, two men injured, one wagon overturned and pistols drawn—as was the case in the last midnight race—it constitutes experience of the sort that should cause to halt all who are not stone-blind or subject to peculiar influence.

If the promoters will not halt of their own accord, every sincere well-wisher of motorcycling will hope that a way will be found to suppress the calamity-inviting event.

The Wonder of the Cycling World.

If ever there was a real wonder of the cycling world the six-day race in Madison Square Garden is that wonder.

In New York, in the Garden and in other public halls, many things and many events recur each year, but there is no "annual" or semi-annual or anything else that is just like the six-day race or that can compare with it. Each succeeding year it appears to have reached the climax of public interest only to have what seemed the climax exceeded the following year. There are public exhibitions that attract the upper classes, the middle classes, the lower classes or the sub-cellar classes but the six-day race attracts all classes. Men who ride bicycles, men who once rode bicycles, men who never rode bicycles and who never expect to ride them—who would not turn their heads to look at one or cross the street to see a sprint race on bicycles—all, all flock to the week-long grind. And they sit or stand and shout or swear, not one hour or two, but—many thousands of them—the whole night long or for several nights or every night. The fascination of seeing a dozen men darting or dawdling around a wooden bowl—of waiting, waiting, waiting for some one of them to gain the all decisive lap, seems irresistible. The newspapers that in the course of the year do not give a total of one column to cycling, devote columns to the six-day race. The public that is supposed to have lost interest in cycling—the cycling that is supposed to have "declined"—seems to hold and gather more feverish interest and wild-eyed enthusiasm—from the six-day standpoint—the more it "declines."

The struggle to pay admission, the side scenes and the smells—both suggestions of the shadier side of Coney Island—each and all and everything connected with the race is not short of wonderful; it is inexplicable; it is past understanding.

The six-day race has become a period akin to a holiday. It is of New York—of all New York and for all New York—the cream, the scum and the dregs and all that lie between. The one thought which it suggests is of what might be—of the success of a cycle track in the heart of New

York or at some popular holiday resort as Coney Island—a suggestion that has been let fall before but to no purpose.

A Basis for Horsepower Rating.

Overshadowing all others, it may be said that there is but one real uncertainty in connection with a motor bicycle, and that, as is the case with its big brother the automobile, is the uncertainty of the power of its motor. True, a certain alleged value given as the horsepower is set forth by the maker and clung to by the agent, but as a rule, there is room for doubt as to its actual truth. Originally the values given were apt to be too high, the performance of the machine under working conditions being apt to fall short of the mark, for one reason or another. More recently, however, a reflex action has set in, and to overcome this possibility, the rating is placed on a far more conservative basis, with the result that where a couple of years ago, the average motor fell short of its rating by anywhere from one-half to two and a half horsepower, now it exceeds it by perhaps the same amount.

As told in another column, the Automobile Club of Great Britain, has evolved a formula for a uniform basis of ratings, yet one which is not sufficiently inaccurate to affect the power question seriously, and which, when applied universally to all motors, gives an equal advantage or disadvantage to all, roughly speaking. Not simply is it proposed to apply this to contests into which the question of motor power enters, but also it is being advocated as a basis for the catalogue rating of the makers, and already at least one great association of the British producers has officially endorsed it and recommended it to its members.

The results of giving a uniform rating to all machines upon such a basis cannot be undervalued. It would serve to give a meaning to the word horsepower which it does not possess at present owing to its frequent abuse. The actual brake horsepower of a motor is too difficult of determination, and too variable in itself to be available for the purpose. Hence some sort of convention becomes necessary, and for this purpose an approximation, which is easy to handle, readily determinable for any machine, the dimensions of which are known, and easily comprehensible to the man in the street, would appear to be the only satisfactory solution.

FOR A HORSEPOWER FORMULA

British Organizations Makes a Move in the Right Direction—The Basis that is Proposed.

After a prolonged period of incubation, the Automobile Club of Great Britain has hatched a formula for the uniform rating of all internal combustion motors which it is proposed to apply not simply in the handicapping of automobiles and motor bicycles in contests of one sort or another, but also to the catalogue rating of machines by the makers. The manifold discrepancies of these alleged horsepower values has been one of the stumbling blocks of the industry for a long time, and in something of this nature the only satisfactory solution of the difficulty is thought to lie. The determination of the actual power of the motor depends upon so many widely varying factors, that its absolute determination in every case is out of the question except where it is possible to apply the Prony brake test. Hence the simplest possible approximation has been settled upon which will give a fairly close and certain basis of rating.

Since its official adoption as a basis of handicapping, a strong effort has been made to have it adopted by the makers universally, one of the first fruits of the campaign being a recommendation on the part of the Society of Motor Manufacturers and Traders that its members take it up at once. In addition to this a circular has been sent out to all the trade, explaining the use of the expression and supplying a graphic table by means of which the horsepower of any motor of known cylinder bore may be determined readily. The rating thus obtained is not invariably accurate, it is to be understood, since it is based on a series of allowances, yet for all practical purposes, it is no further wrong than many of the ratings given by the makers, and has this advantage over them, that when applied to all motors, its values are no more incorrect for one than for another.

The formula, the derivation of which is interesting in this connection, is: power equals $\frac{3}{8}$ of the square of the bore into the speed, or,

$$\text{H. P.} = \frac{D^2 N}{2.5}$$

It is to be understood that this stands as a method of rating only, and that as an accurate computation of the probable power of the motor it would fail to give satisfaction. Yet ordinarily it falls close to the actual value, and usually is within the limits prescribed by the makers at the present time, so that its use need not involve any great amount of humiliation in any case. As to its derivation, it is made up, as must be the case, of a series of allowances, result-

ing in the choice of the constant of $\frac{3}{8}$, finally employed.

In such a formula it is desirable to eliminate as far as possible, the various factors which affect the power. Horsepower is a matter of foot-pounds per unit of time, and resolves itself, in a gasoline engine, into pressure on and the linear velocity of the piston. The linear velocity of the piston is the product of the stroke and the number of revolutions. It being assumed that all makers aim at supplying the most effective mixture from their carburetters, the maximum pressure on the piston depends on the ratio of the compression space to the volume swept by the piston. This ratio varies but little in most types of modern gasoline engines. The high limit of compression is reached when pre-ignition of the charge occurs, and the low limit need not be considered, but as a matter of fact most designers aim at about the same degree of compression, and if this be admitted to be the case, then this factor may be eliminated from the formula.

The maximum linear velocity which can be prudently and economically employed is fairly well established at the present time, and it can be safely said that the best constructors are working approximately to the same figures. For the purpose of this formula the linear velocity of the piston is taken as a constant and the formula correspondingly simplified.

There remains, therefore, as a basis for the rating, the area of piston only, and this is proportional to the square of its diameter, so the expression resolves itself

into $\frac{D^2 \times N}{X}$ where N is the number of cylinders, D the diameter of the piston in inches and X a constant.

The numerical value of this constant depends solely upon the allowance which it is determined to make for the variable factors already referred to. If this allowance be small (so that the result obtained shall approximate to the maximum horsepower obtainable from any given engine), 2 would not appear to be too small a figure. If 2 be taken, then the rated horsepower of a single cylinder motor of $2\frac{1}{4}$ inch bore and running at 1,200 revolutions per minute, would work out at 3.04, which is rather a liberal value for the maximum possible power from a motor of that size. If 3 be taken as the constant, on the other hand, the rated power would work out at 2.03, which would be too low, and hence the medium of 2.5 has been chosen, which gives a fairly accurate value of 2.43. In working out the value for any motor, it will be found necessary after dividing by the constant to further divide by 1,000 in order to obtain the even horsepower value. This need not be confusing, however, as it arises from the use of the integral constant, and as it is applied uniformly to all solutions is perfectly fair. For motors of two or more cylinders, the figure obtained

in the foregoing manner must be multiplied by the appropriate number in order to give the correct power value.

Responsibility for Stored Machines.

The too common practice of "lifting" valuable tools from motorcycle tool bags has been given something of a rap by an English court, the decision, incidentally, giving reasons why those who store machines should sit up and take notice. In the particular case in point, the motorcyclist left his mount in the custody of a liveryman and when he finally recovered it he found that tools to the value of about \$27 had been abstracted. He brought suit for the amount, alleging negligence on the part of the defendant or his servants, the alleged negligence consisting in the gate leading to the yard of defendant's premises being left insecurely fastened and unattended. When the plaintiff handed the machine over to the defendant's son, he told him it was a valuable machine of which he wanted every care to be taken, and asked what charge would be made, the reply being given that it would not be heavy. Plaintiff called nine days later for the machine and was surprised to hear the defendant charge him with taking his bicycle away without paying anything in respect of it. It turned out that someone had stolen the bicycle. The police were informed, and as a result the cycle was found in a wood nearby, but the accessories were not discovered. The bicycle was simply put in a covered shed which was without locks or bolts.

Defendant's lawyer said that the cycle was stored without charge as a convenience to customers, and that, although the yard might not have been locked, it was always closed; that it was locked by the last cabman coming in at night; that a stranger was not expected to be able to open it on account of a peculiar latch arrangement. The court held that defendant was liable. His son, he was satisfied, was asked to take every care of the machine, and this being a bailment for a valuable consideration, he was sure a charge was intended to be made, and proper care under the circumstances was called for. This should have been exercised as a matter of duty by defendant whether he was asked to do so or not. He did not think he fulfilled the duty by placing the machine in an open shed, in an open yard, guarded only by a gate which could have been opened by anyone who knew the trick; that established the negligence. He gave judgment for plaintiff for \$25 with costs.

Although it seems that the day of "impossible" bicycling clothes had come to its end, there yet appears a British sundry dealer who has had the temerity to bring out something new in the shape of a combined cycling breeches and waistcoat. As if to add insult to injury, this combination is styled the "Vestnicer."

RUTT MAKES GOOD BEGINNING

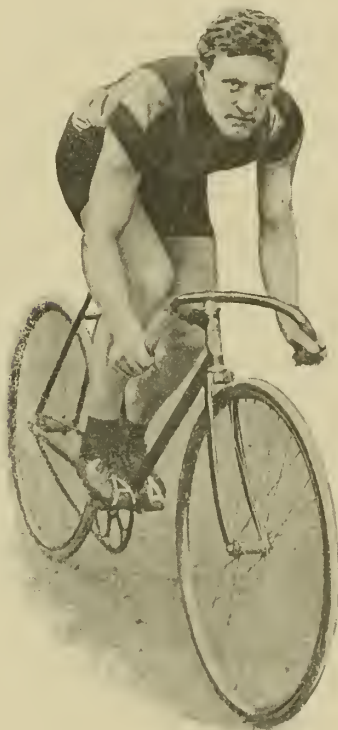
German Champion Wins Ten Mile Event at Six-Day "Curtain Raiser" but Walthour Trounces Guignard.

Madison Square Garden will seat 12,000 persons. It is, therefore, safe to say that considerably more than that number of people were in the big amphitheatre when the first races that form a prelude to the six-day grind were called on Saturday night last, 8th inst. Never before in the history of six-day "curtain raisers" has such an enormous crowd attended or has such a splendid program been given the public. Whoever paid admission to see the races got his or her money's worth for there was not a dull moment from start to finish. The feature event was not any single one; three of the five events run were features.

Of primary importance was the first on the program—the quarter-mile open for the American championship, the only one of the series of six that was not run last summer at Vailsburg. The first trial heat was won hands down by C. A. Sherwood, the young New York Athletic Club rider, and his clubmate, George Cameron, had little difficulty in getting in in the second heat, L. J. Weintz, another N. Y. A. C. man puncturing just after the start. James Zanes, of the Roy Wheelmen, crossed the tape first in the third heat and Thomas Smith and Jacob Magin, both of the National Turn Verein Wheelmen, qualified in the next two heats. Martin Kessler got the sixth and Kluczek, of the Roys, was the winner in the seventh. Mike Ferrari, of the Bay View Wheelmen, won the eighth. Zanes, Smith, Cameron and Sherwood lined up for the first semi-final heat and Zanes, noted as a quick starter, jumped ahead at the signal, while Sherwood's pusheroff gave him a very bad start, so that he had to ride down on the flat before taking the first turn. This advantage gave Zanes an easy victory, winning from Cameron by two feet, the latter beating Sherwood by a length. Kluczek's trainer thought more about giving his charge a rub down than starting him in the second semi-final heat, so Ferrari, Vanden Dries and Magin started alone. Ferrari and Vanden Dries had quite a battle for the honor of qualifying first, the Italian beating the Dutchman by less than a foot. Zanes had the pole in the final heat and the others, in order, being Ferrari, Cameron and Vanden Dries. The last named got away first and Zanes tacked on, followed by Ferrari, Cameron bringing up in the rear. After one lap Zanes went by Vanden Dries easily. Cameron managed to squeeze by Ferrari and Vanden Dries on the pole and was just going to try to run away from Zanes when the pair collided

and Cameron went down. Zanes continued and won rather easily, with Vanden Dries two lengths behind and Ferrari close up for third. The final standing in the amateur championship now is: C. A. Sherwood, 20 points; second, George Cameron, N. Y. A. C., 16 points; third, James Zanes, Roy Wheelmen, 10 points; fourth, Watson J. Kluczek, Roy Wheelmen, 5 points; fifth, tie between Urban MacDonald, Tiger Wheelmen, A. C. Spain, Navarre Wheelmen, W. Vanden Dries, N. Y. A. C., and Mike Ferrari, National Turn Verein Wheelmen, 3 points; sixth, Charles Mock, C. R. C. of A., and seventh, F. W. Eifler, C. R. C. A.

Perhaps the most exciting race of the night was the ten mile open for all the



WALTER RUTT

six-day riders and a few others who were not down for the grind; these latter, however, did not even get a whiff of the money. There was more than \$200 in real money for this race alone, including \$25 to the leader of the most laps and a \$5 bill to the winner of each mile. Thirty-one riders started but when half the distance had been covered only thirteen were left to finish, the others having been ridden off their feet or downed through mishaps. Among the latter were Pye, the Australian, Stol, the Hollander, Urban MacDonald, Hollister, Bardgett and others. Vanderstuyft, of Belgium, had secured a big lead when the gun denoted the beginning of the last mile but Root pulled the bunch to him easily. A spill on the backstretch just before the beginning of the last lap, put Moran, Logan and Downing out and spoiled Root's chances, as he had to back pedal to avoid running into the fallen

riders. Fogler led at the bell, followed by Mettling, Rutt and Clark, in the order named, with Root several yards in the rear. On the back stretch Walter Rutt, the champion of Germany, gave one of his mighty jumps and passed Fogler and Mettling on the last turn. Clark, the tidy little "Kangaroo," also jumped and challenged the German on the short straight to the tape but he was not equal to the task and Germany conquered by less than a wheel, with Fogler close up for third and Mettling dropping in the rear. "Piggy" Moran, the Chelsea milkman, got the lap prize, leading thirty times. The time—22:34½—while not a record, was fast.

It was really too bad that Paul Guignard, the marvellous French pace follower who holds the world's one and two hour records and the title of champion of Europe, should have been beaten so easily by "Bobby" Walthour, but it was only what the wise fans had predicted. Guignard did not have a fair show nor a chance to show his true ability. He had never ridden on a track like the one in Madison Square Garden in the first place, while the Southerner had, and besides he was handicapped in the matter of pace. Walthour had Gus Lawson, acknowledged by the critics of Europe to be the best pacemaker in the world, mounted on a two-cylinder motor, in front of him, while the little Frenchman had only a single cylinder machine to assist him. The race proved easy money and easy honors for Walthour from the start and he lapped his man before half the distance had been covered, Guignard, seemingly being afraid to take chances on the unfamiliar saucer. After that the race lost some of its interest as Walthour repeatedly went past his opponent and before the finish, ten miles, had lapped Guignard no less than six times. Walthour's time was 16:49½, very good going for the Garden.

Another paced race was between Hugh MacLean, the Chelsea "bricklayer," and Floyd A. MacFarland, who learned to ride a bicycle some fifteen or twenty years ago while peddling newspapers in San Jose, Cal. MacFarland had a shade the better of it until MacLean decided to sprint, and then the almost old man could not hold the roller of his machine. "Lady Killer" MacLean beat the elongated son of California by half a lap in five miles. Time, 8:04½.

It took six heats and a final to decide the one mile amateur handicaps, which the "simon pures" of this vicinity have been training in anticipation of for the last two months. When it was all over there were some disappointed riders for William Cerney, of Williamsbridge, from 165 yards, won the first prize. L. J. Weintz, New York A. C., with 30 yards, finished second and Martin Kessler, of the Edgecombe Wheelmen, was third; he had 15 yards handicap.

Jake DeRosier, who used to pace John

Nelson and other famous riders in their day, and Fred C. Hoyt, also a former professional "star," had a three heat, one mile match race. They rode two cylinder Indians and the way they slipped around the turns was enough to send cold chills up and down any one's back. Hoyt, himself, is about as daring as are made, but even he was shaking like a leaf when he dismounted. A 1:30 gait on the Garden track with light racing motorcycles is extremely dangerous and Hoyt and DeRosier were in good position to know it when they felt their rear wheels slipping from under them when rounding the turns. Hoyt misunderstood the signal in the first heat and stopped at two laps to go, but the second looked like a real race, Hoyt winning from DeRosier by a half length. Hoyt got the third heat and the match. The summaries:

Quarter-mile open for championship of America—First semi-final heat won by James Zanes, Roy Wheelmen; second, George Cameron, N. Y. A. C. Time, 9:31½. Second semi-final heat won by Mike Ferrari, Bay View Wheelmen; second, W. Vanden Dries, N. Y. A. C. Time, 0:32½. Final heat won by James Zanes, Roy Wheelmen; second, W. Vanden Dries, N. Y. A. C.; third, Mike Ferrari, Bay View Wheelmen; fourth, George Cameron, N. Y. A. C. (fell). Time, 0:33½.

One mile handicap—Final heat won by William Cerney, Williamsbridge (165 yards); second, L. J. Weintz, New York A. C. (30 yards); third, Martin Kessler, Edgecombe Wheelmen (15 yards). Time, 2:08½.

Ten mile motorpaced match between Paul Guignard, Paris, and Robert J. Walthour, Atlanta, Ga.—Won by Walthour, by six laps. Time, 16:49½.

Five mile motorpaced match between Floyd McFarland, San Jose, Cal., and Hugh MacLean, Chelsea, Mass.—Won by MacLean by one-half lap. Time, 8:04½.

One mile motorcycle match between Jake DeRosier, Springfield, Mass., and Fred C. Hoyt, Bridgeport, Conn.—First heat won by DeRosier. Time, 1:30½. Second heat won by Hoyt. Time, 1:31½. Final heat won by Hoyt. Time, 1:28½.

Ten mile open, professional—Won by Walter Rutt, Germany; second, Jack Clark, Australia; third, Joe Fogler, Brooklyn; fourth, Louis Mettling, Canada. Time, 22:34½. Lap prize winners—James F. Moran, Chelsea, Mass. (30 laps).

Nat Butler Wins Two Paced Events.

Nat Butler won both the paced races at the Velodrome Parc des Princes, Paris, on December 2nd, in the first beating Quesard by two laps and Henri Mayer by three laps. The 20 kilometres were covered in 16:47. The second race was at 30 kilometres and Mayer finished second to the American by three laps with Quesard 200 yards behind him. Time, 25:24½.

THE MANY RACES "ON THE SIDE"

Sprinters, Pacedsters, Motorcyclists and Roller Riders all do "Turns" in the Garden—The Results.

The enormous crowd that crowded Madison Square Garden all week is distinctly a six-day crowd and this is manifested each afternoon and evening when the "grinders" are called from the track and short distance sprint, paced and motorcycle races put on to relieve the monotony. The crowd did not relish having the curtain drawn on what they had come to see—a bunch of weary riders slowly circling in the oval-shaped wooden bowl—and although the variety races were exciting and well worth looking at the crowd voiced its disapproval in a manner not mistakable.

Twice each day Jake DeRosier and Fred C. Hoyt, of Springfield, Mass., have electrified the crowd with exciting one-mile races on two-cylinder Indian motor bicycles and of these Hoyt has won seven and DeRosier four, the fastest time being made on Monday night, when Hoyt won in 1:27½. Paul Guignard, the phenomenal Frenchman who covered 59 miles and 30½ yards in one hour, paced by a motorcycle, has given short distance exhibitions, paced by Gus Lawson, every afternoon and evening and his best times for the various distances are: Five miles, 8:40½, three miles, 4:58½, and two miles, 3:11.

The amateur and professional riders not working have been given employment. One of the feature races on Friday night when Watson J. Kluczek, and two other riders were pitted against two supposedly faster men in an unlimited pursuit race. Kluczek's partners had to give up but he set out alone, as he has done once before this year in a similar race, and after gaining a while was at last forced to give way to the two stronger men, but they did not overhaul him until twenty-three laps had been ridden. On the same night a professional handicap race was run and Floyd Krebs, who has put out of the six-day contest when his partner was injured, started from scratch and won the race in the fast time of 2:00½. A "colored championship," with five starters, proved the hit of the show, all of the riders falling. In the centre of the arena, or the pit inside the track, the home trainer championship races promoted by the C. R. C. of A., each evening held several hundred of the general admission crowd watching the amateurs make the rollers hot. The chief event was an inter-club championship, which after the usual trial and semi-final heats remained between the Cork Pullers, of Brooklyn, and the Century Road Club of America. The Cork Pullers—Wilcox and Raleigh—defeated Eubank and Rhodes, thus winning the cham-

pionship. The Roy Wheelmen lost a chance because Kluczek did not show around in time for the final heat, the second time he has done this in one week. The numerous heats in the individual championship narrowed down to Wilcox, Brandes, Koster and Grupe for the final and Brandes won in 1:34 for the mile, Kister getting second and Wilcox third. The club championship for members of the C. R. C. A., was won by H. Vanden Dries, Wilcox finishing second and Raleigh third. The summary of the track events follows:

One mile handicap, amateur—Won by George Cameron, N. Y. A. C. (10 yards); second, W. J. Kluczek, Roy Wheelmen (40 yards). Time, 2:08½.

Unlimited inter-city pursuit race—Won by New York team (Sherwood, Cameron and J. Eifler); second, Newark team (Zanes, Kluczek and Ferrari). Distance, 1 mile 2 laps. Time, 2:39½.

Half-mile amateur handicap—Won by Mike Ferrari, Bay View Wheelmen (50 yards); second, Dave Mackay, Newark (30 yards); third, George Cameron, N. Y. A. C. (5 yards). Time, 1:02¾.

One mile handicap, professional—Won by Edward Rupprecht, Newark (60 yards); second, Walter Bardgett, Buffalo (110 yards); third, Floyd Krebs, Newark (scratch). Time, 2:35.

Quarter-mile open, amateur—Won by C. A. Sherwood, N. Y. A. C.; second, Mike Ferrari, Bay View Wheelmen; third, Dave Mackay, Newark. Time, 0:31½.

One mile handicap, amateur—Won by J. M. Eifler, C. R. C. A. (85 yards); second, George Cameron, N. Y. A. C. (15 yards). Time, 2:09¾.

Unlimited team pursuit race—Won by Schlee, Collins and Rupprecht; second, Bardgett, McKinnon and Krebs. Time, 4:51½. Distance, 2 miles 90 yards.

Half-mile match between Edward Rupprecht and Charles Schlee—Won by Rupprecht in two straight heats. Times, 1:17¾ and 1:13¾.

Half-mile amateur handicap—Won by Sherwood (scratch); second, Cameron (5 yards); third, Devine (60 yards).

Amateur handicap pursuit race—Won by Sherwood and Cameron; second, Kluczek, Ferrari and Vanden Dries. Distance, 2 miles ¾ laps. Time, 5:20.

One mile professional handicap—Won by Floyd Krebs (scratch); second, MacDonald (125 yards); third, Collins (110 yards). Time, 2:00¾.

One-half mile for colored championship—Won by Ike Lindsay, Calumet Cyclists; second, Ed. Bailey, New York City. Time, 1:10½. All other riders fell.

"The A B C of Electricity" will aid you in understanding many things about motors that may now seem hard of understanding. Price, 50 cents. The Bicycling World Co., 154 Nassau Street, New York City. ***

Maddest of All Six-Day Races

**Great Grind Causes Even Bigger Wave of More Acute Hysteria to Sweep New York—
House Packed Nightly and Enthusiasm Intense—Two Fearful Spills
Mark the Week—Eight Teams Tied for First Honors—
Rutt and McFarland Most Likely Victors.**

Six-day races have drawn tremendous crowds but at no time in the history of such sport has such an outpouring of humanity gathered to witness the start of the grind as that which filled Madison Square Garden on last Sunday night. When T. L. Hamilton, recently appointed Tax Commissioner of New York, fired his silver mounted pistol at exactly six minutes past midnight there must have been 15,000 persons crowded into Madison Square Garden and even after the riders had started on the first hour two long lines fretted and fumed outside the ticket booths. Evidence seemed to indicate that there existed collusion between the management and the horde of ticket speculators who did an unprecedented business on the sidewalks outside, for no seats were to be had after nine o'clock Sunday evening, that is, except from the speculators who had hundreds of them. And they asked unheard of prices for their bits of card board and in most instances got what they asked. Seats that heretofore could be had for one dollar netted the "brokers" five dollars and judging by the way they were snapped up, the supply of "easy marks" in New York has not diminished, although the "six-day fever" is accountable for many unusual phases of human nature.

The men who started for their teams were Root, MacLean, Moran, Vanderstuyft, A. W. MacDonald, Menus Bedell, Vanoni, Samuelson, Krebs, Mettling, Downing, McFarland, Schlee, Galvin, Clark and Leon Georget. All got away without mishap except Galvin, who was run into by one of the pushers off. As the first mile did not result in the loss of laps Galvin waited until the bunch came around. McFarland led the first lap and Moran led at the ending of the first mile, the time being slow, 2:37. Vanderstuyft started the first sprint before the second mile but Rutt, the German, who is frequently mistaken for Kramer, quickly overhauled him; then Vanderstuyft's rear wheel broke and he fell. Punctures and falls were common for the first

two hours, the biggest fall taking place little more than a half an hour after the start when Rutt, Emil Georget, Coffey, Schlee and Breton went down with a crash on the east turn. Breton was shaken up and lost his breath for a few minutes but resumed

THE TEAMS THAT STARTED.

The teams and riders that started in the grind are as follows: Belgium-Holland team—Arthur Vanderstuyft, Belgium, and Johann Stol, Holland; French-Italian team—Petit-Breton, France, and Carlo Vanoni, Italy; Australian team—E. A. Pye, Swan Hill, and A. J. Clarke, Melbourne; Dixie-Yankee team—Bobby Walthour, Atlanta, Ga., and Hugh MacLean, Chelsea, Mass.; German-California team—Walter Rutt, Germany, and Floyd McFarland, San Jose, Cal.; Irish team—Matt Downey, Boston, and James Moran, Chelsea; Scotch-Irish team—A. W. MacDonald, Somerville, Mass., and J. B. Coffey, Boston, Mass.; Canadian-Irish team—Louis Mettling, Jamaica Plains, and Patrick Logan, Boston; Long Island team—John Bedell, Lynbrook, L. I., and Menus Bedell, Lynbrook, L. I.; French champion team—Emil Georget, France, and Leon Georget, France; Little Old New York team—E. F. Root, New York City, and Joseph Fogler, Brooklyn, N. Y.; Mormon team—W. E. Samuelson, Salt Lake City, and C. L. Hollister, Salt Lake City; German-American team—Floyd Krebs, Newark, N. J., and Edward Rupprecht, Newark, N. J.; Wild West team—Norman C. Hopper, Minneapolis, Minn., and Hardy Downing, San Jose, Cal.; National Turn Verein team—Urban MacDonald, New York, and Charles Schlee, New York; Farmer and Messenger Boy team—Frank Galvin, New Milford, Conn., and George Wiley, Syracuse, N. Y.

riding later; all the wheels were broken.

At 2 a. m. Walthour, once the idol of the six-day racegoing public, jumped, or rather thought he did, and started out for a lap. But he reckoned without his host for little Stol, whose friends in this country it would take some hours to count, was on his rear wheel like a flash. Walthour gained a quarter of a lap before he tired and discovered Stol hanging on and smiling at him. The good-looking little Hollander went out of

his own accord but Root, winner of two six-day races, brought him back to a realization that this was only the second hour and far too early to begin funny tactics. At a quarter to three o'clock, Mettling fell and Root rode over him, falling hard; he was not hurt though. The crowd still held on and for nearly an hour Leon Georget, the younger of the brothers that showed their heels to the other riders in the first six-day race ever run in France, kept in front and woke up the sleepy crowd by frequent wild sprints. Breton relieved Vanoni at quarter past four and set a good fast pace for twenty minutes when Schlee moved up and sprinted for half as long as the Frenchman led. Breton then went in front again and for forty minutes kept the bunch traveling at a 22-mile gait. After Leon Georget started a sprint at 5:30 a. m., George Wiley, the diminutive Syracuse messenger boy, tried to steal a lap and he got a good lead. Vanderstuyft jumped while Wiley was still out and quickly passed the messenger boy for a lead of a third of a lap, but Moran pulled the others up to him.

Just at 6 o'clock another big tumble sent five riders crashing to the floor on the east turn, Stol, Downing, Rupprecht, Hollister and Urban MacDonald being the victims. Several of the wheels were rendered useless and although the riders that fell were scratched and bruised, none was injured so that he could not continue. Fifteen minutes later Schlee and MacDonald made a determined effort to gain a lap but they soon tired and took their places in the procession.

Vanderstuyft started a sprint at 6:25 a. m., and after gaining a third of a lap he saw that he could not hope to increase his lead to a full lap, so slowed up suddenly on the east turn, considered more dangerous than the one at the other end of the oval. He stopped so suddenly that the riders bunched quickly. To avoid running into Vanderstuyft, MacLean rode to the outer edge of the track but he was going too fast to



START OF THE SIX-DAY RACE

stop and his front wheel struck the guard rail. MacLean fell on his right shoulder, and as he rolled down the track Clark, Urban MacDonald, Rupprecht and Emile Georget all rode over him, the pedals of one of the bicycles striking MacLean in the head. The popular Bay State rider was picked up unconscious and bleeding profusely, and placed on one of the trackside cots where the official physician, F. S. Creamer, made a hurried examination. MacLean's scalp was badly lacerated and required eight stitches to close the wound. His shoulder was also badly sprained and his body cut in other places. He was taken to the New York Hospital to have a more thorough examination made, where several hours later it was stated that he was getting along nicely and would be out in a few days. Urban MacDonald sprained his shoulder in the fall and could not go on for some time. When it came time for him to do so the plucky young New Yorker could not straighten out his right arm and his trainer advised him to quit, but "Mac" insisted that he be put on his wheel and,

gritting his teeth, he jerked his arm to its full length and straightway started a sprint to make the pain easier to bear.

The red flag—denoting no laps lost, or gained—was put out until Walthour came on to take his partner's place and prepared to ride alone until some other team should become disorganized and he could thereby secure a partner. He did not have long to wait for a little while after Menus Bedell, Urban MacDonald and Edward Rupprecht and others went down with a crash. Menus Bedell fractured his collar bone, MacDonald's injured arm received an additional wrench and Rupprecht's left leg was so badly injured that he could not continue. MacDonald was compelled to give up and, of course, Bedell was out of it. As a result of these misfortunes the Walthour-MacLean team was officially declared out at 8:34 o'clock, with 188 miles 5 laps to their credit. The Bedell brothers' team was officially withdrawn at 9:11 o'clock, having ridden 201 miles 4 laps, and the Krebs-Rupprecht combination was eliminated at 9:26 o'clock, their score being 207 miles A laps.

Schlee and MacDonald retired at 9:35 o'clock, with 210 miles. John Bedell and Walthour began as a new team at 9:41 a. m., one lap behind the others, the rules requiring that a new team must take the smaller score or, if both are with the leader they shall be penalized one lap. An attempt was made to pair up Schlee and Krebs, the survivors of the other teams, but when they found that they would be penalized a lap, neither felt like continuing.

Throughout the afternoon there was no change in the standing of the riders and the foreign riders set most of the pace, Breton, in particular, doing more than his share of the work, in one instance being at the head of the procession for one hour lacking four minutes. Walthour and Bedell tried several times to gain a lap and thus place themselves on an equality with the other teams but each time the attempt was unsuccessful.

Until in the early part of Tuesday evening the feature of the grind was the work of the foreign riders, Breton and Vanoni

and Leon and Emil Georget—les freres Georget, as they are called in France. The wise handicappers had figured that the detention of the Georget brothers in the emigrant hospital at Ellis Island until two days before the race—it was thought they had a contagious eye disease—would make itself apparent soon after they started, for they had no time to work their staleness off. But the Georgetts have proved the prize package of this race. For the first twenty-four hours they contented themselves with trailing the bunch but on Tuesday they kept in front well and not infrequently livened up the pace. Breton and Vanoni relieved each other only at long intervals during the morning and afternoon and until Tuesday night had done more pacing than all the other teams put together. All along the riders have scored more mileage than in last year's race and Vanoni and Breton are directly responsible for it.

It was not expected that after Walthour and John Bedell lost a lap through the formation of a new team, they would remain idle, and the expected attempt to gain a lap and thus place them on an equality with the others was started shortly before six o'clock Tuesday. Walthour had just relieved Bedell, when he jumped and started a long hard sprint with little Matt Downey on his heels, but Vanoni was not to be caught napping and he took the pair when they had opened a gap of about a quarter of a lap. When Walthour and Downey looked around and saw Vanoni sleighriding they slowed down and the bunch closed the opening. For a few minutes there was occasional sprinting, and as soon as the riders settled down to a pleasure jog, John Bedell came on, made a pretty pickup and set sail around the wooden bowl. He rode like a man possessed and from a quarter of a lap he increased his lead to a half and then to three quarters. Just when it seemed that he would overtake the bunch from the rear Root and Hollister came together in some manner, those who witnessed cannot say just how, and the two tumbled. The red flag went out again and this put an untimely end to Bedell's great ride. There was a lot of dissatisfaction expressed and some even went so far as to openly allege that Root and Hollister had fallen on purpose to save themselves from being lapped. It did not appear that this was the case but to tell the difference between an intentional fall and a natural tumble is one of the most difficult things in the world.

A couple of hours later Walthour, with Matt Downey on, jumped again but this time it was Breton, Vanoni's team mate, that made their attempt fruitless. Some time later Floyd McFarland, the veteran of the lot, who started riding a bicycle before the majority of the riders in the race knew the difference between a sprint and a grind, suddenly took a notion to do a little sprinting. Up to this time he had re-

mained in a minor position about eighth from the front and consequently none of the riders were prepared for his determination to go out for a lap. In consequence "Long Mac" worked his pedalic appertainments to advantage for more than a half lap gain before the sleepy riders got it through their brains what was transpiring. When they did they went after the elongated San Josean like a pack of famished wolves, with Walthour leading the chase. The pace set by the Atlantan was so fast that he and big "Piggy" Moran detached themselves from the others, overhauled the old man, and kept on. Breton had been fifth in the line when the sprint started, and when he saw that Walthour and Moran had no intention of stopping it was the petit Frenchman that paced the bunch up to them. Root then came out to relieve Fogler and Breton made things interesting before the pickup was accomplished.

The riders had just begun one of the intermittent sprints when Fogler went down with a crash. Walthour and Downey apparently did not notice this for when the others slowed down they started to gain a lap and had very nearly succeeded before their attention was called to the red flag. Without stopping to investigate, the partisans of Walthour and Downey began to howl again and boo hoo about being cheated out of a lap, that it was impossible to get a lap fairly and lots of other assinnical things, but as the portion of the frame of Fogler's bicycle leading from the head to the hanger case snapped in two it is really difficult to understand how he might have avoided falling. Perhaps Walthour's and Downey's adherents might have suggested a way but they did not. Walter Rutt, the Kramerlike Teuton, also tried for a lap on Tuesday, but Breton gave him the hook. The score at midnight was 902 miles 5 laps, which is 83 miles 6 laps better than the score for forty-eight hours last year, but less than the record of Elkes and McFarland, set up in 1900; it is 966 miles 3 laps.

Although the management raised the price of admission to twice the usual amount and increased the price for choice seats accordingly, on Wednesday night, two days before the usual time, it did not affect the attendance in the least and every seat and most of the standing room was occupied before nine o'clock. Wednesday seemed to have been selected as a sort of try out day for the teams to gain a lap, for a number of the riders made futile attempts to gain the much coveted lap, which would place them in a much better position to win the thousand and a half offered for first prize. The first attempt of this kind started a few minutes before four o'clock in the afternoon and would have been successful but for the slowness of one of the riders most directly concerned. Downey was on the track at the time and when he noticed

that Moran had come up from his training quarters to relieve him, suddenly jumped and gained a lead of the length of a stretch. Moran went on to relieve him but could not unwind quickly enough and Downey kept on going after Moran had got even with him, and Moran slowed down to wait for the next time around. Then occurred some lively moving on the part of the riders and trainers for a few minutes, everybody relieving each other half a dozen times. Moran, when he dropped back, picked up Downey and increased the distance after four laps sprinting and then the hero of last year's race went on the track again and was just about to gain a lap on the field when there was the inevitable crash and Wiley, Clark and Emil Georget got rolled down the home stretch in front of the judges' stand. This, of course, brought out the red flag and the "Irish" team's effort amounted to naught. It would have not counted anyway, for that matter, but there were those who could not see why it was. Because of the cries of "fake" the Board of Referees caused this official notice to be posted, which should explain itself: "The spill which ended the attempt at lap gaining by Downey and Moran probably prevented a misunderstanding between those men and the officials. As Moran actually relieved his team mate when Downey passed him the first time, Moran's score was counted and Downey was not in the race until he had made a full stop at the Twenty-seventh street stretch, according to the rules and subsequently relieved Moran. The field passed Moran while he was waiting for Downey to pass him the second time."

Within a few minutes after the commotion aroused by this nearly successful endeavor on the parts of the two Bostonians, a nasty fall occurred at the Madison avenue end of the track. Moran's rear tire exploded and as he fell, Logan, Samuelson and Walter Rutt were brought down with him. Moran and Logan were bruised and scraped somewhat and had to be assisted to their cots but resumed riding later, and Samuelson's front wheel was smashed. During the evening Downey, Walthour and Breton sprinted frequently, but the coveted gain of a tenth of a mile, one lap, was not forthcoming. Moran and Downey had additional cause to rail at their ill-luck a little while before midnight. Stol jumped and Walthour followed, catching the Hollander and opening a gap before Rutt bunched the field. The riders had hardly settled down to a steady clip before Moran lowered his formidable-looking jaw and gained a third of a lap before Walthour, who was leading at the time, saw him. Downing came on, made a fine pickup and was in sight of the tail enders when Samuelson's wheel slipped on the steep banking of the Fourth avenue turn and he slid to the floor. The omnipresent red square came out and Downey gave up in disgust, with only a few yards to make up had not the Mormon "spend-

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Teams	12 hours M. L.	24 hours M. L.	36 hours M. L.	48 hours M. L.	60 hours M. L.	72 hours M. L.	84 hours M. L.	96 hours M. L.	108 hours M. L.	120 hours M. L.
Root-Fogler	260.7	490.2	706.5	902.6	1102.8	1291.4	1471.1	1629.8	1723.6	1943.4
Rutt-McFarland	260.7	490.2	706.5	902.6	1102.8	1291.4	1471.1	1629.8	1723.6	1943.4
Vanderstuyft-Stol	260.7	490.2	706.5	902.6	1102.8	1291.4	1471.1	1629.8	1723.6	1943.2
Downey-Moran	260.7	490.2	706.5	902.6	1102.8	1291.4	1471.1	1629.8	1723.6	1943.4
MacDonald-Coffey	260.7	490.2	706.5	902.6	1102.8	1291.4	1471.1	1629.8	1723.6	1943.4
Mettling-Logan	260.7	490.2	706.5	902.6	1102.8	1291.4	1471.1	1629.8	1723.6	1943.4
Hopper-Downing	260.7	490.2	706.5	902.6	1102.8	1291.4	1471.1	1629.8	1723.6	1943.4
Pye-Clark	260.7	490.2	706.5	902.6	1102.8	1291.4	1471.1	1629.8	1723.6	1943.4
E. Georget-L. Georget	260.7	490.2	706.5	902.6	1102.8	1291.4	1471.1	1629.8	1723.6	1943.4
Walthour-J. Bedell		490.1	706.4	902.5	1102.7	1291.3	1471.0	1621.7	1723.5	1943.3
Breton-Samuelson								1621.7	1723.5	1943.3
Galvin-Wiley	260.7	490.2	706.5	902.6	1102.8	1291.4	1470.8	1629.5	1723.3	1943.0
Breton-Vanoni	260.7	490.2	706.5	902.6	1102.8	1291.4	1471.1	5		
Samuelson-Hollister	260.7	490.2	706.5	902.6	1102.8	1291.4	1471.1	6		
Schlee-U. MacDonald	3									
Krebs-Rupprecht	4									
J. Bedell-M. Bedell	2									
Walthour-MacLean	1									

¹MacLean out 185.1²M. Bedell out 201.4³Schlee-MacDonald out 210⁴Krebs-Rupprecht out 208.9⁵Vanoni out 1448.4⁶Hollister out 1435.5

thrill" wobbled on the banking and caused the spill.

Between twelve and two o'clock Thursday morning there was probably more relieving of partners than for the same length of time during any part of the race up to that time. It was brought about by the attempt of "Jack" Clark, the popular little Australian, to gain a lap at fifteen minutes past midnight. Clark succeeded in putting twenty-five or thirty yards of yellow pine between himself and the other grinders before Vanoni, who came on to relieve Breton, succeeded in pulling him down. At 2:15 a. m. Pye jumped and had succeeded in gaining a quarter of a lap when Clark came on to relieve him, but the latter could not pick up his fellow countryman fast enough and the bunch soon closed again. Just before this Moran made another unsuccessful attempt and after riding three laps about forty yards in front, was caught by Mettling who, by the way, has made an excellent showing, far better than was expected of him. At 3:15 Vanderstuyft's rear tire exploded and a few minutes later Walthour jumped with Rutt on. The pair gained some distance but Bedell did not come on and the pair could not continue the killing pace for more than six laps. Stol had just come on to take his partner's place when his rear tire lost its air.

The most disastrous spill of the entire race and one which eliminated two of the most formidable combinations, happened about an hour before the average New Yorker's breakfast hour, on Thursday. Just exactly how it happened has not been explained to the mutual satisfaction of all concerned, but the majority blame Fogler, much the same as they blessed Vanderstuyft for causing the early retirement of Hugh MacLean. It seems that a few minutes after seven Fogler sprinted when he

saw Root coming on to relieve him. He caught up with Root on the bank on the Fourth avenue end and as they exchanged suddenly slowed up so that Downey, who had started in pursuit of Fogler, ran into him, and both riders fell. Downey ran off into one of the guard posts and carromed off hitting Hollister. The exponent of plural marriages fell directly across the track in the path of the oncoming riders and they ran into him so quickly that no one was able to tell who got there first. Anyway, Leon Georget, Logan, Wiley, Coffey and Rutt fell and Hardy Downing only escaped by a trick that is seldom if ever seen in six-day races. How Downing got by the riders that had fallen over Hollister is a mystery, but he did, and coming to Hollister, he suddenly pulled up on the handlebars, quickly lifted his front wheel clear over Hollister's prostrate body and jumped over. It was a clever trick and the thousands that saw it gave the popular San Jose man a cheer. Pye was the only other rider that escaped the mix-up. Poor Hollister was a dreadful sight when they picked him up, unconscious and bleeding from innumerable wounds. Vanoni had ridden over Hollister and been hurled as from a catapult into a box containing six men, breaking the guard rail in his flight, and when the surgeon found a dislocated shoulder, not to speak of countless bruises, it was a safe conjecture that this very popular rider also would not finish the race. There were probably six thousand persons in the Garden when the accident occurred and it was more than an hour before order was restored and the race resumed. When Fogler went on the track at two minutes past eight the crowd seemed to unjustly indicate that it thought the Brooklyn rider had done the damage with malicious intent. Although Fogler is admittedly a tricky rider and tricky sometimes means "dirty," when he

does not think everybody is out to do him Fogler has a good big open heart, and that he should deliberately cause a fall that might result in great loss of life is inconceivable. His personal friends admit that Joe is not above falling should he be in danger of being lapped but as for deliberately trying to put every man out of the contest and at the risk of his own life, no—never! Evidence of this was shown when, the crowd having hissed Fogler for what he admitted was his fault but not intentional, the big Brooklynite broke down and sobbed like a child. Then his momentary weakness was suddenly placated by an entirely different feeling and, drawing his lips together, he exclaimed with some vigor and anger: "They can all go to hell!"

Vanoni and Hollister being declared officially out at 11:15 a. m., Breton and Samuelson formed a new team immediately and resumed with a loss of one lap, according to the rules.

Walthour and Bedell lost another chance for the lap needed to place them with the leaders, a few minutes past ten o'clock in the morning. By relieving each other the pair succeeded in getting away from the field and after some strenuous riding had passed every man on the track and were just going by the last one when Galvin took a notion to fall. As Galvin was out of his class when he entered the six-day race with the crack bunch that composes this race, and nobody but himself considered that he had a chance in a million to win the race, naturally there were a number of mighty "sore" persons. It cannot be said that Galvin fell intentionally because that will never be known, but if he did, or any other rider for that matter, Madison Square Garden would make a pretty roomy sepulchre for any one caught in the act. The referee also ruled that Bedell had not picked up Walthour in accordance with the

rules, so that he would not have gotten the lap had not Galvin fallen. Be that as it may, there was a great uproar when the score for the next hour showed Walthour still one lap behind the leaders.

More happened that day than during any day of the race and it was proved that no team could gain a lap, simply because each time a man fell that would cause an advantage gained during that time to be lost and someone seemed to develop the faculty for falling at the most opportune times. It is a hundred to one shot that there will never be another six-day bicycle race until the rule is made more broader and fairer for the hardworking riders. The riders would have struck Thursday had not their contracts bound them to finish the race, and they would have been fully justified if they had dismounted from their bicycles and absolutely refused to ride another lap.

Walthour started another hard sprint at two minutes after 11 o'clock and after three laps of fast sprinting his place was taken by Bedell. Fogler had gone after Walthour when the latter began to sprint, and when Bedell relieved the Atlanta boy Fogler swung in behind Bedell. The latter tried hard to shake Fogler off, but could not. Walthour went out again in a few minutes to relieve Bedell, but it took him three laps of hard riding before he succeeded in catching him so a pickup could be made. As Walthour took Bedell's place, Root relieved Fogler and at once proceeded to sprint away from Walthour. Root rode very hard and in six laps had passed all of his opponents except Walthour, who was still about a quarter of a lap ahead of him. When it seemed almost certain that Root would soon overtake Walthour and thus put his team a lap ahead of all the other teams, Pye, the Australian, tumbled on the Madison avenue turn and Root had to sit up with nothing gained.

At 11:22 o'clock Walthour made still another attempt to gain a lap, gaining the length of the stretch by his jump. Fogler was leading the field but seemed very tired and when Bedell relieved Walthour, Fogler did not make any headway at overhauling the Long Islander, so Root was sent out to take Fogler's place. Root got very busy and though Bedell had a lead of two-thirds of a lap, Root had overhauled him in two laps after he got going. Walthour went out to take Bedell's place as soon as he realized that Root would catch him. Walthour began to sprint as soon as he had taken Bedell's place and as Root was very tired after his phenomenal sprint of two laps just before, he could not overhaul Walthour. In less than a mile Walthour had overhauled and passed all of his opponents except Matt Downey and Root, being within twenty yards of Downey when the latter tumbled as he rounded the Madison avenue turn, Root being thirty yards ahead of Downey at the time. The result of all this sprinting was that all the scores

were as they had relatively been when the score for 84 hours was posted at noon except that the farmer and messenger boy team, Galvin, of New Milford, Conn., and Wiley, of Syracuse, were found to have lost three laps, which put them two laps behind the Walthour-Bedell and Breton-Samuelson pairs, far enough to not figure in any of the prizes.

From noon until midnight there was scarcely anything to arouse the spectators. Though a lot of men and boys had been chased out of the building after the general tumble in which Hollister and Vanoni



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had been finally eliminated, there were more than 13,000 persons in the building at nine o'clock. About two-thirds of them had come in since the general admission price had been raised to \$1. There were frantic demands from the gallery occupants that Walthour get a lap, and similar requests without number were made of Root, Stol and Breton by compatriots of these riders. Walthour, Breton and Pye, the Australian, made a few spasmodic sprints, but none of these was anything more serious than little plays for the applause of the populace.

With only twenty-two hours more to go and with eight of the twelve teams left in the contest tied for first honors, the race begins to have somewhat the effect as a big fire upon the crowd watching it. At a fire the people wonder if the walls will fall in, or if anyone will get singed or some other thing, and at this stage of the six-day race they are keyed to the highest pitch of expectancy guessing whether any of the leaders will gain that much desired lap. They wonder something else, also, and that is if a team succeeds in placing that distance between themselves and the others, whether it will be allowed. Adding to preceding events of the week, what hap-

pened during the day, would seem to make one justified in saying not.

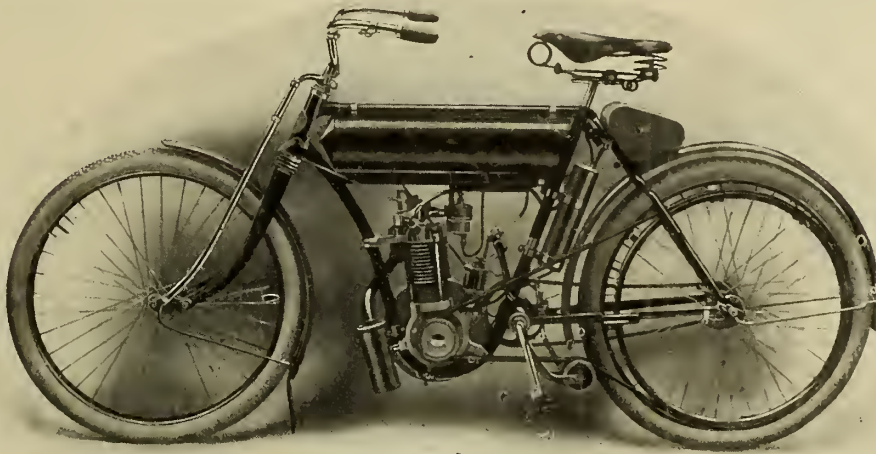
The first sprint, and it has begun to be natural to add, "spill"—occurred very early in the morning when John Bedell started the fun by sprinting just as Walthour appeared on the track to take his place. Georget was up in front and Fogler in back of him. According to the seemingly straightest report of the thousand and one of what took place, just as Fogler prepared to pass Georget the latter swerved ever so slightly but enough to scare Fogler and he put out his elbow. This threw Georget and when he went down his wheel struck Fogler's and his collapsed. Both rolled down the track, but Vanderstuyft and Hopper were coming on fast from behind and they had to make a sudden turn to get out of the way. The result was that the plucky little Belgian banged into the guard rail on that part of the turn and somersaulted over into one of the boxes, with Hopper right after him. Naturally this stopped the race for the time being and Vanderstuyft's face was a sight to behold; he was bruised and cut from one side to the other and the flesh was torn from his right shoulder and both legs badly cut. Vanderstuyft was really too badly banged up to continue but he insisted on doing his trick as long as he was able to sit on the wheel and when he came out later he received a splendid ovation for his remarkable display of Spartan courage. Hopper also, though bruised about the head, was patched up and continued. Emil Georget was bruised, Walthour got one or two and Logan hurt his hand.

About half an hour later while Hopper and Vanderstuyft were still off the track, Bedell started another fierce sprint. "Bill" Bracket, Hopper's trainer, protested to the referee, contending that only one member of his team was fit to ride, but the sprint was not stopped. It was the most relentless, most unmerciful, ruthless, implacable, most savage, most ferocious, most inhuman (the superlative degree of all the adjectives in the dictionary cannot express it) sprint that ever was witnessed in any bicycle race of any kind. It was just one wild nightmare from start to finish, and it lasted for twenty-six minutes. The officials can certainly be pardoned if they got mixed. No human agent could have evolved order from that chaos. Root, Walthour and Downey were timed for over twenty laps, two miles, and they made it in 4 minutes 23½ seconds. Hardy Downing and Floyd McFarland were the only wise ones in those few minutes of human hell. They just sat up and laughed as the riders circled around them like demons. Everybody thought that the teams Root-Folger, Downey-Moran and Walthour and Bedell had gained one or more laps on all the others but in the midst of this frightful nightmare Jack Clark inadvertently fell and this brought out the red flag, when it should have been out long before. When the score was posted the

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Here is what an enthusiastic rider has just written about one of our Cleveland Bicycles:

"Kindly send me an eight tooth sprocket for the rear wheel of a Cleveland Model 82. This wheel has served me for the last TEN YEARS and I have not had as much as the spokes trued up. Have used it in all kinds of weather and have ridden thousands of miles on it.

"I must put in a good word for the 'CLEVELAND' for being 230 pounds weight and quite a speed rider, I think this wheel has stood the racket something remarkable. Kindly send me the sprocket named above, if possible, as two old friends don't want to part."

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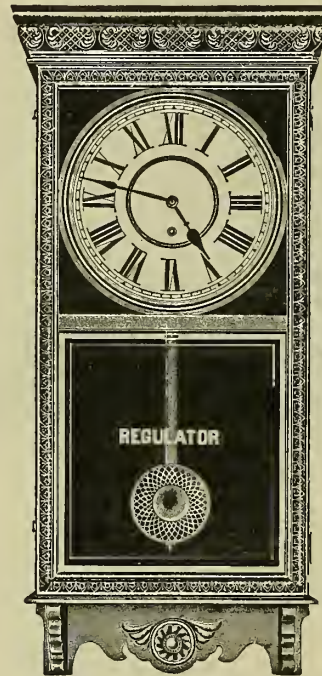
Columbia and Hartford.....	\$25 to \$100
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HARTFORD, CONN.

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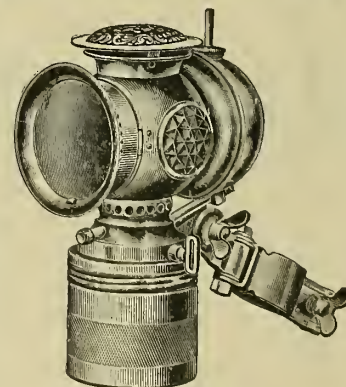


WE will make you a present of one of the splendid Regulator Clocks, shown on this page if you will send us 24 Never-leak Certificates. These clocks are over 3 ft. high, 16½ in. wide, case solid oak, 8 day movement, constructed of brass and steel and fully guaranteed. Any Brass Sign certificates you may have on hand or hereafter obtain through purchases of Never-leak, will be allowed to apply on the clock. One of these clocks will be an ornament to any office, shop or store. One certificate is enclosed with each dozen 4-ounce tubes of Neverleak. Twelve certificates will entitle you to a Brass Sign as heretofore.

**BUFFALO
SPECIALTY COMPANY,**
BUFFALO, N. Y.

SOLAR BICYCLE LAMPS SOLAR

100 Ft.
Ahead
Brilliantly
Lighted



Will
Not
Jar
Out

Send for our complete catalogue which tells all about the different patterns and prices.

BADGER BRASS MFG. CO.

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11th Ave., 36th & 37th Sts.,
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positions were practically the same that prevailed before the sprint started. When it was all over the principal actors in the tragedy that had just been enacted—the riders—collapsed, and it was a great deal more than an hour before they were able to resume their mounts and take up the weary task of pedalling once more.

There was not much doing from then until in the evening at ten minutes after ten, when McFarland surprised ten thousand spectators by jumping the bunch and starting for a lap. He gained 25 yards when Logan got him, and together the pair pounded on their pedals until the lead had been increased to 50 yards, but Fogler came on like a whirlwind, overhauled them and slowed the bunch. Just as the pace slackened Walthour gave another of his expected jumps but did not get very far. Two minutes later Fogler rode high upon the bank, jumped on his pedals and rode like a fiend. He called for Root when he passed the camp and Root was on his wheel and had picked up Fogler in less time than the *Bicycling World* man has ever witnessed any one get going. Root made a beautiful pickup and Pye, the fast Australian, extricated himself from the others and tacked on behind Root. The pair got a half lap, then three quarters and Fogler came out again, relieving Root, only to make another change a few seconds later. There was wild commotion for five minutes or more and every rider was on the track at the same time. When it was all over the officials announced that the teams of Vanderstuyft and Stol and Galvin and Wiley, had each lost one lap.

At half past eleven Walthour and Samuelson were seen in earnest conversation for a few moments and a few minutes later the pair started a sprint. They gained twenty-five yards before being overhauled. Vanderstuyft, injured so badly that he should have been in bed, was on the track at the time and in his enfeebled condition he was not strong enough to stay with the bunch. Stol was called for and he jumped on his bicycle, relieved Vanderstuyft, then nearly three-quarters of a lap behind, and after a wonderful and plucky unpaced ride succeeded in mingling with the other riders and staying with them until midnight, having then been in the saddle fourteen hours that day. It was learned that P. T. Powers had suggested that the team withdraw and although Stol, brave of heart as he is, would have just gone on and continued in the chance that one of the teams would meet with disaster before the finish and thus give him a team mate.

The final position will be decided by a mile sprint at 10:30 to-night between the teams that are tied, by one member of each team and unless the inexplicable something happens, Walter Rutt should win the sprint, if he receives assistance, as it is whispered he will. Second place is doubtful but Hardy Downing and Matt Downey can always be relied upon to show.

Hoyt and Derosier Professionalized.

As a result of their appearance in the match races that have been held daily in connection with the Madison Square Garden six-day race, Fred C. Hoyt and Jacob Derosier have been transferred to the professional class by Roland Douglas, chairman of the Federation of American Motorcyclists' Competition Committee. When the men made their first appearance, it was gravely announced—they are not over-particular about their announcements of such six-day side issues—that they were racing for the "F. A. M. Championship Medal," but, of course, this was not the case, the evidence on which Mr. Douglas based his action showing that the appearance of the two men was due to a purely commercial arrangement. Hoyt and Derosier both had received plain intimations of what would follow their appearance under such conditions and Hoyt, at least, held back until he learned that probably he would involve others in a lawsuit did he fail to adhere to the agreement that had been made.

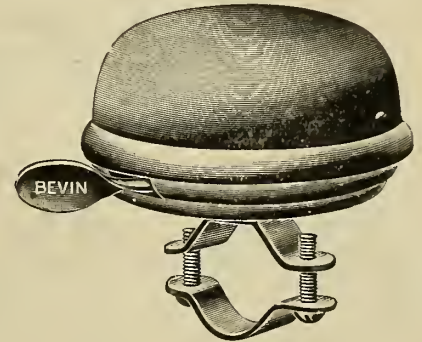
The transfer of the two men did not interfere with their riding at the Garden, nor will the professional mantle be strange to them. Both Hoyt and Derosier were formerly professional cyclists who got into motorcycle amateurism because of the peculiar and much-mixed state of affairs that required the establishment of January 1, 1905, as a date from which amateurism should be inaugurated in the new sport.

How They Earn Their Livings.

It is the rule of professional bicycle riders, and one that is seldom violated, to not work if they can help it, but notwithstanding, there are a variety of trades represented in the six-day race. George Wiley, of Syracuse, N. Y., is a district messenger boy and it was while chasing messages and reading "Diamond Dicks" that Walthour was discovered. Root tests automobile engines for the Pope Mfg. Co., when he has to work and Fogler sells motorcycles and bicycles once in a while. Krebs is a wood turner and his team mate, Rupprecht, is a machinist. The Bedell brothers operate restaurants sometimes. Coffey, of Boston, is a bicycle repairman, and young MacDonald, from the same city, measures ribbon in a department store. Hugh MacLean's trade is brick laying, while Matt Downey and Frank Galvin are chauffeurs. Moran runs a milk route at Chelsea, and Mettling still goes to school. Patsy Logan is a laundryman, in spite of his Celtic blood, while Urban MacDonald is a tester for the New York and New Jersey Telephone Company. Ernest A. Pye, the "kangaroo," is a carpenter. McFarland began life as a newsboy, Hollister is a telephone inspector and Hopper collects telephone bills. Samuelson is a painter and Hardy Downing a fruit grower, while most of the riders confess that they have no stable employment.

THE "Good Old Standbys"

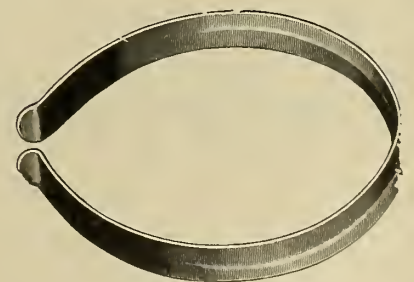
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Prices as interesting as ever.

Bevin Bros. Mfg. Co.
EAST HAMPTON, CONN.

KELLY ADJUSTABLE HANDLE BARS

The Standards of the World



Top View
No. 5 California
1 inch Forward Extension
20 inches wide. 22 inches when level.

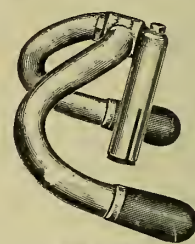
The Bar that is used by the masses.



Side View



Top View
No. 3. 1 inch Stem
18 inches wide. 20 inches when level.

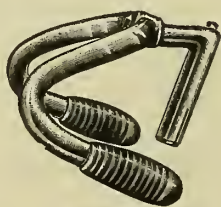


Side View

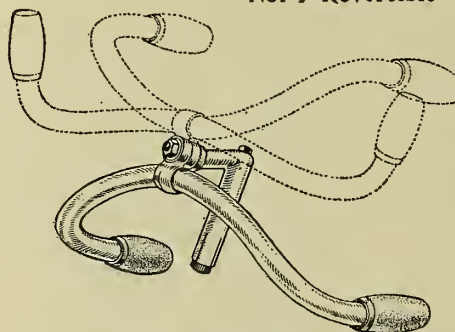


Top View
New No. 4 Racing
2½ inch Forward Extension
23 inches wide. 25 inches when level.

For Racing and Club Men



Side View



No. 7 Reversible

This bar can be changed from a drop to an upturned position without removing the grips. Being held by a friction clip, same can be placed at an angle by simply loosening the nut.

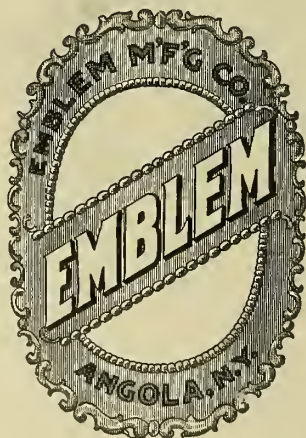
22½ inches wide. 1 inch forward stem.
22½ inches wide. 2½ inch forward stem.

KELLY HANDLE BAR COMPANY

Cleveland, Ohio

With our up-to-date line of bicycles we are now prepared to take orders for our

Emblem



Motorcycles

Emblem Manufacturing Co., Angola, N. Y.

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J. T. BILL & CO., Los Angeles, Cal.

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MANUFACTURER'S SUPPLIES CO., 418 Arch St., Philadelphia, Pa., Selling Agents for Delaware and Southern New Jersey.

THE BICYCLING WORLD and MOTORCYCLE REVIEW

FOUNDED
-1877-

Volume LIV.

New York, U. S. A., Saturday, December 22, 1906.

No. 13

RELIEF FOR NEW YORK DEALERS

**Soon will be Able to Repair Motorcycles
Without Fear of Arrest—Gasolene
Laws to be Amended.**

There is every probability that the efforts of the Federation of American Motorcyclists to relieve the intolerable conditions to which the motorcycle dealers of New York have been subjected will meet with even a greater measure of success than was anticipated.

As the Bicycling World pointed out several weeks since, the stringent regulations affecting the use of gasolene has borne most oppressively on these dealers, few of whom are legally entitled to permit so much as a drop of the fluid within their establishments, although many have taken the chance of incurring the heavy fine and imprisonment that is the penalty for violation of the regulations. Some of the dealers were subjected to repeated visits from inspectors of the Bureau of Combustibles and were kept in such a state that they were forced to make all their repairs and tests on the sidewalk.

Two months since, R. G. Betts, president of the F. A. M., interested himself in the matter and quickly had overruled one ridiculous order that forbid the storage of motorcycles the tanks of which ever had contained gasolene. He has persistently followed up the advantage and as a result, the Municipal Explosives Commission at their meeting this week, considered the matter and designated one of their members, C. Andrade, Jr., to reach an understanding with Mr. Betts. At the conference which ensued, Mr. Andrade was eminently fair minded and no trouble was had in coming to a common basis of agreement. Accordingly, Mr. Andrade will recommend an enactment permitting motorcycle repair shops to carry at least one gallon of gaso-

lene or, if the other commissioners consent, five gallons, provided the fluid is kept in approved safety tanks and that neither gas nor stove fires are used on the premises. This means, of course, that the shops must be lighted by electricity and be heated by steam. As the Explosives Commission is a law unto itself, any action it may take will be final.

In the course of his interview with Mr. Betts, Commissioner Andrade let fall one additional item of interest—that a raid on the users of blow torches is likely to be made at any time.

The Retail Record.

Sandusky, Ohio.—Will S. Collins, new store at 629 Hancock street.

Canyonville, Ore.—Miles McIntyre, business removed to Grant's Pass, Ore.

Nashua, N. H.—Hartman & Co., sold out to A. C. Pollard, who removes to Hartman building.

Greenfield, Mass.—Charles J. Page filed petition in bankruptcy; liabilities \$622.11; no assets.

Phoenix, Ariz.—T. L. Morris, sold out to Gove Phelps and Robert Stapley; new style Stapley & Phelps.

Colorado Springs, Col.—Anthony Motor & Cycle Co., sold out to Western Automobile & Supply Co., J. W. Ebert, president.

Ovington Leases Larger Quarters.

The Ovington Motor Co., American agents for the F. N. four-cylinder motor bicycle, have leased the double store at 2208 Broadway, near 79th street, New York, and will take possession January 1st. E. L. Ovington, the active head of the company, has been making a great success of the business, his orders for 1907 being far in excess of anticipations, which stands as evidence of what a man really in love with motorcycles can do. He has owned three automobiles but says he had rather have one motor bicycle than all three of them.

KEIM COMES BACK STRONGLY

**New Corporation to Bid Aggressively for
Cycle Trade's Orders—Sales Manager
Lee is Elected President.**

Although John R. Keim, Buffalo, N. Y., never wholly withdrew from the cycle industry, of late years he had not been the factor in the business that once he was. Since the business was purchased by the Messrs. Spaulding and converted into a corporation styled the John R. Keim Mills, it has been decided, however, to recover lost ground and to "go gunning" for cycling orders as energetically as of yore. J. R. Lee, who was Keim's sales manager, has been elected president of the corporation and let this fact be known during a visit to New York this week.

All of the parts and components with which the name Keim was associated will be produced but a special drive will be made on crank hangers, pedals and frame sets and as Lee is well acquainted with the trade, the recovery of the lost ground will be rendered far less difficult.

By a curious turn of fate, the original owners of the plant were named Spaulding but they were no connections whatever of the recent purchasers, who are two young men of wealth and with wealthy family backing. They occupy the other offices in the new Keim corporation.

Standard Completes its New Factory.

Evidence of the prosperity enjoyed by The Standard Co. just has been completed in Torrington, Conn. It takes the form of two fine large factory buildings in which the Standard two-speed coaster brake and the Standard spokes, pedals and other products will be hereafter manufactured. Hitherto, the Standard Co. has shared the big plant of the Excelsior Needle Co., with which it is affiliated, but both businesses grew too great to be longer contained in the same building.

LUCKE'S TESTS OF ALCOHOL

Government Expert Reports Favorable Results of His Experimentation—Others:

Disagree with Him.

With the beginning of the new year, considerable interest will be aroused over the use of denatured alcohol for fuel in internal combustion engines, and particularly in regard to its employment in place of gasoline. It is expected that the government's new regulations controlling its production and sale, which become effective on the 1st prox., will cause a considerable drop in its price, and that the ready facility with which it can be produced will stimulate a considerable production of it. This being the case, the only question remaining is as to whether it really will do the same work as gasoline, and whether it can be utilized without materially altering the structure of carburettors and motors. In order to determine its actual value in a comparative way, Professor Lucke, of Columbia University, sometime since, was appointed by the government to make a series of investigations in order to establish positively its value as a power producer. This he has done, and finds that it is even more suitable for the purpose than had been anticipated, and that as a matter of fact in certain ways it is likely to prove superior to gasoline.

In his experiments, Professor Lucke has used only motors of American construction and of up-to-date pattern, so that the results may be expected to apply to any modern motor of good design. One of the most striking of his results is the discovery that contrary to general belief, alcohol may be used to advantage in the ordinary type of carburettor, and without any alterations in its structure being required. Slight changes in the relative proportions of the fuel vapor and air are necessary, to be sure, and the greater sensitiveness of the alcohol mixture to atmospheric conditions brought about by changes in temperature and humidity requires a greater nicety of adjustment and a more frequent modification of the settings than is required with gasoline.

As to the specific advantages of alcohol apart from its low cost and plentiful supply, it is pointed out that the fumes of the exhaust are neither unpleasant nor unhealthful, that there is little or no tendency to the formation of deposits of carbon or other foreign bodies on the cylinder walls, no condensation upon the ignition points, and no tendency to ignition difficulties other than those which are found in any internal combustion motor of standard construction. In addition to this, the fact that alcohol readily mingles with water adds an element of safety to its use which is by no means to be minimized. For in the event of an explosion of its gas, or the inflam-

ation of any considerable body of the liquid, water may be applied to extinguish it, just as in the case of fire from any other source except that of an insoluble fuel such as mineral oils. This, together with the fact that at present no stringent regulations prohibit the storage of large quantities of alcohol on private premises, forms the keynote of its advantage.

While any gasoline motor will run on denatured alcohol, the low compression engine is best adapted to its use, he thinks. With high compression it is very hard to start on alcohol. For this reason alcohol is likely to prove excellent for air-cooled motors. Weather conditions affect alcohol much more readily than they do gasoline. In very cold weather it would be almost impossible to start a motor on alcohol, and it is possible that on this account it will be necessary to carry a little gasoline even should alcohol come into general use as a fuel.

In driving it is found that the alcohol explodes better when the spark is carried well advanced and the needle valve in the carburettor well open. Thumping in the engine, due to pre-ignition when gasoline is used, however, is not noticed with alcohol. In fact, intense heat and an advanced spark even in very hot weather all tend to assist the new fuel to act. Thus it can be seen hill climbing in summer with air-cooled motors will be made easy.

In the winter time, Professor Lucke thinks, it will be necessary to use some of the heat from the exhaust to warm the air as it enters the carburettor. Alcohol otherwise will not become a popular winter fuel.

In the matter of consumption it is noticed that while more power and greater speed is obtained, alcohol is not likely to be a particularly economical fuel unless it becomes very much cheaper than gasoline.

In the grain producing districts alcohol should become very cheap as the government permits the farmers to produce it if they will combine and guarantee an output large enough to warrant the expense of a government inspector. As is already pretty generally known, the law establishes a certain formula for making the fluid. It must be composed of 100 parts of 90 per cent. alcohol to which is added 10 parts of wood alcohol and one-half of one part of benzine. This is supposed to destroy the fluid for drinking purposes but, nevertheless, the government is going to run no risks.

The very closest inspection is provided at distilleries and the fluid must be sealed in cans or barrels. Every retailer must be licensed, without fee, and he must take the name of every customer. The wholesale and retail reports must be made to the government at stated times and they must tally, to prove that all the fluid made has been consumed as fuel and not re-distilled into pure alcohol.

That there is room for doubt as to the success of the propaganda, however, is ap-

parent from the criticisms of Professor Lucke's report, which have come from several quarters. Even before his investigations had been commenced, several automobile manufacturers had been experimenting with this and other types of fuel in an effort to determine a more satisfactory and less expensive liquid which would serve the purpose as well as gasoline. One of them, a well-known expert in such matters, is quoted as having taken direct exception to the Lucke report, though not denying its rectitude in certain respects.

"I do not entirely agree with Professor Lucke's view," he said. "Alcohol will not displace gasoline for several years at least."

"Before it comes into general use a lot of changes will have to be necessary in the present form of motors. The use of alcohol offers a new problem in carburation that is likely to be a knotty one to solve, while changes must be made in cylinder dimensions that will take time to correctly determine. Under the present conditions it is difficult to start a high compression motor on alcohol, while alcohol is much more influenced by weather conditions than is gasoline.

"I believe that alcohol will give greater speed and power than gasoline and will therefore make all automobiles better hill climbers. At the present time it is much more expensive than gasoline, though as the demand for it increases, it may be produced as much less cost than gasoline. You will not find alcohol used to any extent for automobile fuel in 1907 excepting for experimental purposes."

When the Motor Misfires.

When an engine misfires at high speeds but runs well ordinarily at more moderate rates of travel, four clues should be followed: the batteries may be somewhat weakened so that with the shorter duration of the spark they may not furnish sufficient flame to ignite the whole of the charge; the carburettor may not be getting sufficient air for the high rate of induction; the timing of the valves may be incorrect, either through altered adjustment, or through a weakened inlet spring; or the sparking points of the contact breaker may be so badly pitted they do not permit the full amount of current to pass in the given time. Following up each of these lines to its source, usually will discover the root of the malady.

They Do not Represent Reading.

Because of some misunderstanding on the subject, the Reading Standard Cycle Mfg. Co. desire to have it known that A. F. Pommert and C. B. Chadman, comprising the Economy Cycle & Supply Co., Detroit, Mich., are no longer their representatives in the Middle West. George C. Smith, the Reading Standard traveler, is on the ground and is taking care of the situation.

HERE'S THE SPLITDORF MAGNETO

Proves to be a Compact and Well-Designed
Article—Good Results Obtained and
the Promise it Holds.

Although the possibilities and advantages or otherwise of magneto ignition for the motor bicycle have been under discussion for some little time, it was not until an American ignition specialist turned his attention to the production of such a device that it came to be given more than a passing thought of curiosity. The design of a

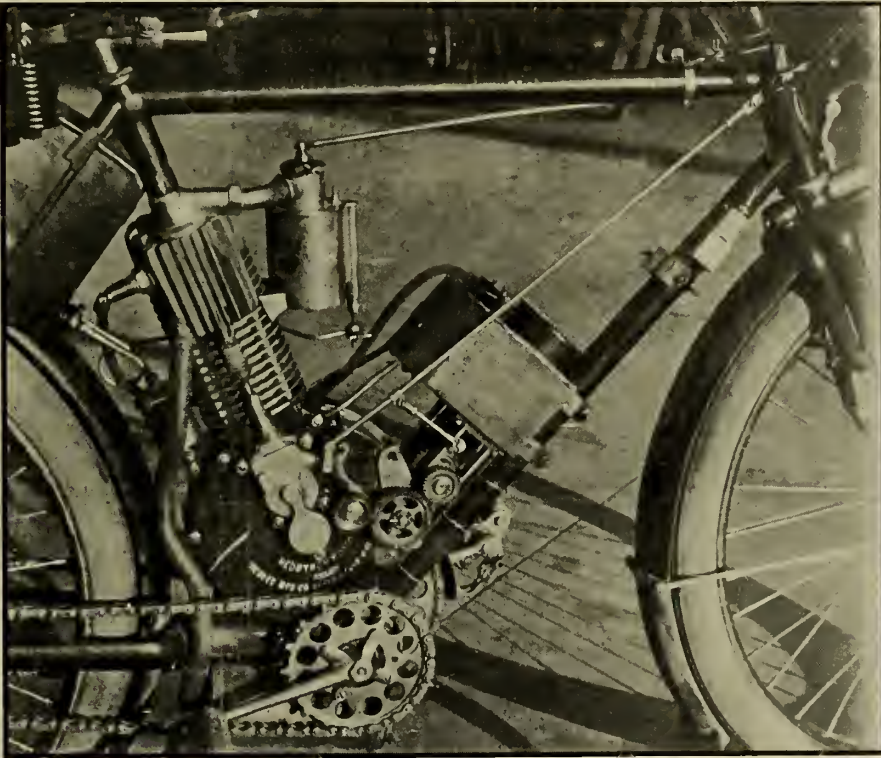
structured along well proved lines and embodies no features which are sufficiently new or untried to be at all questionable. Securely mounted on the lower tube of the frame, it is driven by spur gearing from an ordinary two-to-one shaft, a small pinion being fitted to the end of the shaft instead of the breaker cam which it replaces. A second pinion receives its motion from this through the medium of an idle gear loosely mounted on a stud set in a plate bolted to the crank case of the motor. Upon the inner end of the shaft carrying the third pinion is a bevel gear meshing with its mate which is keyed to the armature shaft

front end of the device, with the two wires leading from it to the cylinder of the motor. Within the enclosure of the magnet, but above the pole pieces, is placed the coil which is identical in principle and general construction with that used in the more ordinary coil and battery system, and carries out the same function. Upon the lower end of the armature shaft is mounted a sleeve having a helical groove cut in its surface, in which rides a yoke connected by means of the rocker arm and connecting rod, shown in the illustration, with the left grip control of the machine. The same mechanism also is used to actuate the exhaust lifter in starting. The very evident effect of moving this rod is to alter the relative position of the armature with relation to the crankshaft of the motor. This alters the timing of the spark just in the same manner as the swinging of the contact breaker about the cam serves to alter the timing in the ordinary mechanism.

After two and a half months of constant and painstaking trial during which time a machine fitted with the magneto has been put through every conceivable sort of use which a motor bicycle could be supposed to go through and come out in working order, the device has proved its worth. Despite the great variety of road and weather conditions encountered, it is said that not once has it refused to perform its work readily and spontaneously. The fact that not once during that time has the motor refused to start easily, and that no trouble of any sort has been encountered with the ignition, speaks volumes in itself for the efficiency of the system.

Among the advantages claimed for the magneto are: ease of starting, the motor taking up its cycle usually when the machine is simply pushed along at a walking pace; increased power on hills, due to the greater efficiency of the fat spark obtained, which also works out in favor of greater speed along the level; economical operation, since no attention is required ordinarily and adjustment of the circuit breaker is required only about once in a thousand miles; greater certainty of action, implied by the large ignition flame, which is capable of igniting a widely varying range of mixtures; and durability on account of the small number of working parts and their good mechanical construction. In its complete form ready to attach to the machine, the magneto weighs ten pounds. As already indicated, it is entirely enclosed, as far as working or delicate parts are concerned, requires little or no attention, and is neither clumsy nor unsightly. The price complete is \$40, with an extra charge for driving gears which will be supplied at the option of the purchaser.

The magneto has been used by M. E. Toepel of the Splitdorf laboratory for several months past and there is no gainsaying that its splendid behavior has, in New York, at least, served to make many converts.



motorcycle magneto by none other than C. F. Splitdorf & Co., New York, however, has served to arouse not a little interest in what promises to be one of the most important additions to the motor driven cycle which has been made since the very beginning of the industry. How this new device would be applied and how it would serve the purpose for which it is intended, have been the cause of not a little speculation which is now allied by the appearance of the machine itself.

As shown in the accompanying illustration, mounted on a machine of well-known manufacture, the Splitdorf magneto presents a by no means cumbersome appearance; it is well protected from dust and dirt by housings, and moreover is installed in a well-guarded position and so mounted as not to be subject to any of the ailments which might be expected to come through exposure or poor fitting. Outwardly it does not differ materially from other machines of its class which are already on the foreign market and an examination of its mechanism reveals the fact that it is con-

of the magneto, the latter lying in line with the frame tube and but a short distance away from it.

Structurally, there is less complication about the magneto than might be implied from the fact that the mechanism is hidden from view. The main frame and outer portion of the apparatus comprises the permanent magnet, the field of which serves to produce the current when the armature is revolved. Within this, and at the lower portion nearest the base are the two pole-pieces fitting the magnet externally, but hollowed out inwardly to form a circular opening extending from end to end, the top and bottom sides of the pole pieces being removed just far enough from one another to leave a slight "gap" and their separation being just sufficient to leave a small amount of clearance all around the armature. This is mounted in ball bearings centrally and carries at its forward end the contact breaker or distributor for both the high and low tension circuits. This mechanism, which is enclosed in a hard rubber case, is plainly to be seen at the

The Dealers Who Pinned their Faith to National Bicycles

in 1906

were the men who did business on

"THE SUNNY SIDE OF EASY STREET"

They had the bicycles with which to quickly answer the "Show me" demand—the bicycles that are not like the common run of bicycles—the bicycles that have individuality and talking points (which are merit points also) and which when sold stay sold and sell others.

**If Your Business Needs a Tonic, Why
Not Try the National Agency for 1907?**

NATIONAL CYCLE MANUFACTURING COMPANY
BAY CITY, MICH., U. S. A.

**Comfort
Resiliency**

and 45 per cent. Saving in Tire Maintenance are the essentials
of the ever reliable

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Like all Fisk products, they have a Quality and a Construction that is exclusive—real merit—through and through—that makes their distinct superiority apparent.

WILL OUT-LAST TWO OR THREE OF OTHER MAKES

THE FISK RUBBER CO., Chicopee Falls, Mass.

THE BICYCLING WORLD and MOTORCYCLE REVIEW

FOUNDED 1877

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Change of advertisements is not guaranteed unless copy therefor is in hand on MONDAY preceding the date of publication.

Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should Address us at P. O. Box 649.

NEW YORK, DECEMBER 22, 1906.

"Enclosed is my renewal. I would not do without the Bicycling World."—Henry Shuk, North Yorkina, Wash.

Greeting.

Nearly every man practically is the illuminator of his own Christmas. It is merry or lacks good cheer according to the individual lights. With joyousness and the spirit of good will to men fairly pervading the world, every person in it is entitled to a Merry Christmas and a share of the season's good cheer. The Bicycling World extends the season's greetings to its clientele and hopes that each member thereof will be able so to illuminate his Christmas or that it may be so illuminated for him that the greetings may prove more than a mere expression of words.

Denunciation that was Undeserved.

The terrific onslaught of newspaper denunciation which marked the closing days of the six-day race was as incomprehensible as it was undeserved. It arose so suddenly and was continued with such savagery and exaggeration as to excite suspicions of ulterior motives. Each year there has been criticism but never was there less

excuse for it than on the most recent occasion. At best the six-day race is not a highly perfumed affair but the cries of "Fake" that arose were baseless.

The Bicycling World is not a profound admirer of the promoter but it never has known him to engage in dishonest sportsmanship and does not believe he would be guilty of it, nor can we see how he could do so even if he would. The officials had nothing to gain by being unfair and there was no evidence of unfairness. The only thing that savored of unsportsmanlike proceedings was the prearrangement between the leading teams to help Rutt win but fate was against even that deal and it was rudely upset.

The rule nullifying the gain of a lap during the course of which any rider may fall is a trouble-breeder which places a premium on cupidity on the part of the contestants; but the rule was not a secret one and was enforced without favor. Some of the falls on such occasions were more than suspicious but proof of intent is simply unobtainable. The other rule which requires practically a special race of one mile to decide the main event is also not easily defended; it alters the whole character of the grind.

Changes in the details certainly are advisable but to savagely denounce the whole race because such charges are advisable and because some undesirable spectators are attracted is as unjust as it is unsportsmanlike. Despite anything that may be said, the grind is an absorbingly attractive event. New York likes it, as the enormous attendance proves, and would miss it were it omitted.

Magneto vs. Dry Cells.

Probably there is no topic which is due to excite more live discussion among motorcyclists than that of magneto versus battery and coil ignition. By those who have had experience it is claimed that the magneto furnishes vastly better running results than the battery and coil, is less troublesome, and requires so little attention that it is practically negligible. Others claim for it less of reliability than the more ancient method of developing the spark, and point out the fact that in case it becomes deranged, there is little or no hope of repairing it outside the laboratory. It is significant, however, that most of the "doubting Thomases" have had little or no experience with the magneto, and that those who

have are almost without exception, heartily in favor of its use.

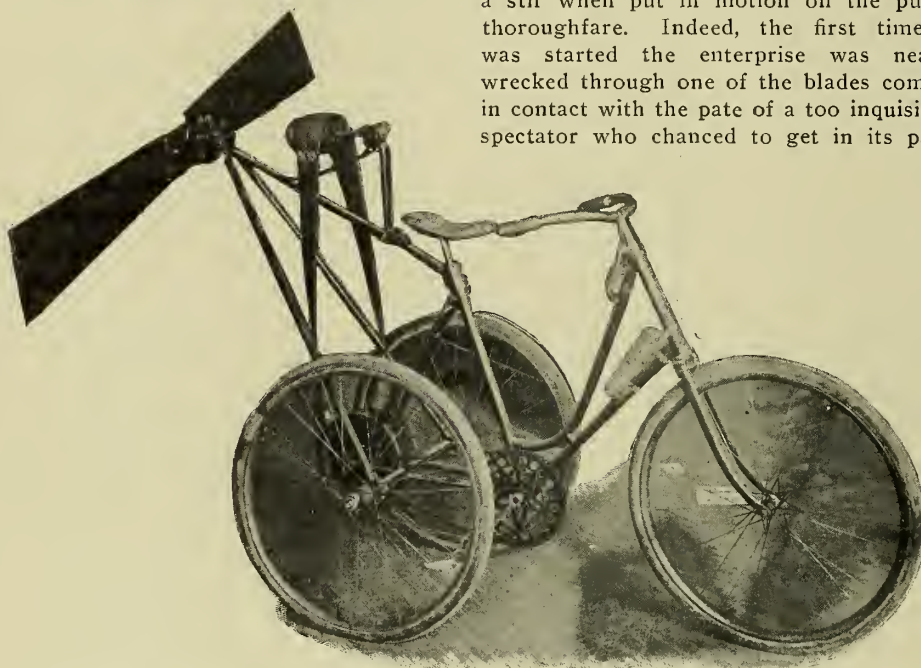
In regard to its structure, it may be pointed out that the high tension type, which is the only one under discussion for motorcycle use, is almost identically the same in construction and certainly the same in theory as the battery and coil insofar as the method of induction of the secondary or actual sparking current is concerned, and that as a matter of fact, the vital parts of the coil and circuit breaker are better protected in a well-made magneto than they are as ordinarily installed on the machine with the more common arrangement. The actual difference between the two then is found in the method of obtaining the primary current. In the one case this is obtained from the primary battery, and in the other from a revolving armature like that of a common dynamo such as is used in generating the current for the electric light. The distinction is one between a stationary and a moving generator, as far as that alone is concerned, and on the face of it, the former is the more advantageous. Yet when it is considered that the life of the battery is limited not simply by the rate at which the current is drawn from it, but also to a certain extent, by the actual duration of its life, and that the armature is everlasting under right usage and only variable in efficiency as the bearings or driving mechanism wears out or becomes deranged, it is seen that the difference is of less importance than at first would appear.

Comparison between the life and efficiency of a dry battery and a couple of spur gears driving a little shaft carrying a bundle of wires leaves little to be said in the way of argument on that score alone. When also it is shown that the magneto gives a more lively and better spark, and not simply that, but that the strength of the spark increases with the speed of the motor, as it should in theory, the only question left for discussion is that of the cost. In this the battery apparently has the advantage. Yet when it is considered that the elimination of all the uncertainties of the battery system, together with the diminution in the amount of attention required, involves a saving in labor and time which has a valuation in dollars and cents, it is found that there is a practical value received for the price of the magneto, which is bound to make it receive increasing attention.

WINGED WHEELS THAT DO NOT FLY

But They are Supposed to be Assisting the Problem of Aerial Flight—Two Curious Specimens.

A new breed of cyclists has arisen within a short time who aspire to harness the atmosphere and come as near to flying as may be without leaving terra-firma. To this end some sort of cycle running gear is built or adapted, equipped with propelling mechanism of one sort or another and upon a superstructure of light material is mounted a huge propeller fan of aluminum or canvas blades to which the mechanism



of propulsion is connected, while the wheels serve merely as castors. Sometimes these machines are built merely for the purpose of testing the pulling ability of some new type of fan, the inventor of which is too chary to trust himself above the level of the ground. In other cases, the notion of hooking up the breeze in this fashion is too attractive to be resisted, and the object is simply that of developing some new kind of vehicle.

The machine here pictured, which was one of the attractions of the Aero Club's exhibit at the recent show in the Grand Central Palace, New York, is nothing more or less than a well-aged tricycle upon the rear part of which has been mounted a propeller. A drum mounted loosely in its bearings just back of the rear axle is belted to the propeller driving pulley and also is connected by means of an ordinary sprocket chain with the pedals. The inventor, Prof. Pickering, of Harvard University, while known to be very enthusiastic as to the possibilities of the device, is not reported as having created any new records for

speed up to the present time. So far as is known, however, he is the first to attempt to construct a pedal propelled wind-cycle.

Another exponent of the principle, who relies on the power of the gasoline motor for driving the fan rather than upon his own muscular powers, is Dr. Julian P. Thomas, of somewhat balloon fame, who during the time of the show, was reported as endeavoring to reach the Grand Central Palace with a new development of his own, like the Pickering structure, standing on three wheels, but differing from it in that the fan was mounted in front instead of in the rear. The propeller, being of the double-bladed variety with an eight-foot span, was calculated to create something of a stir when put in motion on the public thoroughfare. Indeed, the first time it was started the enterprise was nearly wrecked through one of the blades coming in contact with the pate of a too inquisitive spectator who chanced to get in its path.

On another trial, the blades, which were of too heavy material, broke loose and went sailing out of sight as soon as the motor began to turn over. So it was not until considerable time had been consumed in preparations that the machine was actually ready for a trial.

As tried out on upper Broadway, it presented a somewhat curious spectacle. The big windmill in front, mounted over a single wheel set in fixed forks, gave out a mad whirr as it cleft its way through the air, while the little motor on the rear axle did its share to disturb the peace of that residential and sometime sedate neighborhood. The full merit of the arrangement could not be determined, owing to difficulties with the drivers of several teams which were met, but according to Dr. Thomas, when under full headway the drag of the fan should lift the forward end of the machine clear of the ground so that it would go careering about with only its two hind wheels trailing. On this account the weight was distributed at the rear of the machine as much as possible, and for this reason

also, the rear wheels were designed to do the steering. The propeller finally adopted had canvas blades or sails stretched over a staunch wooden frame. The machine itself was constructed of bicycle tubing, well reinforced, yet made as light as possible, and the power plant consisted of an eight horse Curtiss motor made to develop its power at about four hundred revolutions per minute.

How Bicycles "Made" the Suburbs.

"It has been said," remarks the very newest magazine, *The Circle*, "that the bicycle made Long Island, although it might appear that the automobile has since absorbed it. New Yorkers did not know what a garden spot was lying at their doors until the bicycle came to lure them out over its level roads, where they might breathe its pure, invigorating air. The bicycle did its full share in bringing about the great suburban movement which is to be noted in all large cities, and which grew up along with the development of the bicycle habit. The city dweller rode out into the country and was fired with the desire to make a home there. Through the bicycle he learned to love the country, and from loving green trees, broad lawns, fresh air and singing birds to living among them was but a step. Nothing is more conducive to health, body, mind and soul, than a love of the soil, and nothing has done more to develop and foster this affection than the bicycle. To the exhilaration which comes to the automobilist it adds the vigorous exercise of pedestrianism."

Motorcycles for Wire Stringing.

In the Austrian army the motorcycle is being employed for a new and expeditious method of laying field telephone and telegraph wires. For this purpose a motor bicycle with side-car attachment, is used, having a revolving reel carrying the wire, and attached to the machine within easy reach of the sidecar. Around the reel is wound wire, which the operator, by means of a long pole furnished with a hook at the end, directs either along the tops of the trees or in the gutter by the side of the road. Previously these field telegraph and telephone wires were laid by foot soldiers, whose rate of progress has been entirely eclipsed by the more modern method. In a recent test the laying of a kilometre (equal to 1,093 yards) by hand occupied twenty minutes; with the motorcycle four kilometres (equal to 2 miles 855 yards) were laid in the same period.

Justice is a queer article especially that of the English brand. In England recently a Lincolnshire miller was indicted for killing a cyclist and was sentenced to three days' imprisonment, while a young Perthshire laborer who purloined a bicycle, only to become conscience stricken and give himself up to the police, was sentenced to forty days imprisonment.

CHICAGO RACES IN DOUBT

Fierce Condemnation of New York's Six-Day Race Causes Promoter to Hesitate—Next Season's Prospects.

The deluge of denunciation that encompassed the recent six-day race caused P. T. Powers to change his plans and the New York bicycling "fans" to lose the chance of seeing a week of good racing. It was not known at the time, but the promoter of the six-day race had intended letting the track remain in the garden for another week. He was going to start Monday night with a card of sprint and paced races, continuing nightly until Friday, when a twenty-four hour team race was to have been started. The track was left standing until Monday morning but then it was decided to tear it down.

This unfavorable comment that was engendered may have some effect on the projected Chicago race, also. Some say it will not do so, but Powers himself will not yet say whether or not the proposed three weeks of racing in the Windy City will be held now. Alderman James Bowler—the old rider now wears several large diamonds—came on from Chicago to get a line on the riders, but he would not commit himself. Bowler and Trainer John West will have a hand in the management of the Chicago six-day race, if it is run.

Most of the foreign riders left the country on Thursday, so they are out of the question. Johan Stol remained to pay a visit to St. Louis, and Guignard, the pace follower, will go to Atlanta with R. J. Walther, Gus Lawson and John Chapman, where they will hold a race meet on Christmas day. All the Boston riders left Tuesday and the Salt Lake delegation went on the following day. Robert Coquelle, who attended the race as a representative of the controlling French organization, did not go back with the other foreigners, but left to visit Niagara Falls.

Just what next year holds in store for the riders and "fans" is not yet apparent. John Chapman, who managed the Salt Lake saucer with success last season, came on to New York for the purpose of signing riders for the forthcoming season. He says he will manage the track next season, but of this some of the riders do not seem so sure and they did not sign. Chapman says that he intends to open the Salt Lake saucer on May 1st, should favorable weather permit, or a month earlier than last season, and that three meets a week instead of two, will be held, Sunday being the extra day. He also says he is trying to get the track at Ogden and that if he succeeds, will place a good man in charge there and run one meet a week. The reason that the Ogden saucer has not proved a bonanza like

the one at Salt Lake, Chapman avers, is because the races were not advertised.

From another source it was learned that Floyd McFarland had been importuned to take the management of the Salt Lake saucer. The riders admitted that there had been some dissatisfaction with Chapman at the head, and that they would much prefer to go with McFarland, whither he should wander. McFarland intends to take a run over to Paris for a few races, and after that, he does not know at the moment just what he will do. It is understood that C. B. Blomecke, owner of the Vailsburg track at Newark, sent for McFarland to see him, and that he has offered the historic oval at any terms. If McFarland decides to take the Vailsburg management there is brilliant prospect for a renewal of the old time glory and splendor of cycle racing in the East in store, for Powers will then open Madison Square Garden and hold races two nights every week during the summer season.

"If I get the Vailsburg track," said McFarland to the Bicycling World man, "it will not be on a percentage basis. I am willing to lease it for two or three years at a figure that I shall name to Mr. Blomecke, and if he accepts my proposition, I know it will be a paying venture. I would not go into it did I not feel assured of this beforehand. I will bring over Rutt from Germany and Ellegaard or some other champion sprinter from Paris, and with Kramer and Lawson to contend, the 'pro' races would not always be one way. With one or two race meets a week at Vailsburg and two in Madison Square Garden the racing game would take a 'hurrah' for the better, and I think I could get together such a lot of classy riders as has not been seen around these parts for some time."

In view of this situation McFarland's conference with Blomecke will be awaited with interest.

Loss of a Wonderful Bicycle!

Childlike faith in the simplemindedness of the average thief as well as the national tendency of getting badly mixed when it comes to details, are characteristics of Erin's sons which are in no wise altered when they graduate from the ranks of ordinary citizenship to the "force." Hence there is in itself nothing remarkable in the following advertisement recently inserted in the "Lost and Found" column of a Dublin newspaper, though the idea of a front back-peddalling brake might come as something of a shock to the average bicyclist, were he ignorant of its origin in the police department:

"Coventry Flyer," free-wheel bicycle, 24 frame, black enameled with dark green lines, new frame, old wheels, "Brampton" saddle, tool bag containing one wrench and pneumatic outfit, two brakes, front one being a back-peddalling brake, front mudguard broken and tied with copper wire, front wheel wobbles slightly.

DENOUNCED THE BICYCLISTS

Call for a "Rebellion" by Tricyclists who Considered Themselves a Superior Set—Quaint Document Unearthed.

Although there are many of the older riders who are able to recall the bitter feeling and the disruptions of clubs caused by differences of opinion regarding the merits of the "ordinary" or high bicycle, and the lowly safety, that the tricycle ever caused a similar state of affairs is known to few. It was long, long ago, of course, and did not happen in this country, where the tricycle failed to attain any considerable vogue. In England, however, the three-wheeler was quite popular in 1883 and thereabouts and it was in that year that its devotees sought to organize a "rebellion" in the ranks of the Cyclists' Touring Club, the then international body. The fact has been recalled because of the recent efforts to drop "Cyclists" from the club's title and the details of the "rebellion" make amusing reading at this time. The movement took the form of this call for a separate organization of tricyclists:

"(Please do not show this to your Consul unless you think he is sure to join with us.)

"It is desired by most Tricyclists to separate themselves entirely from Bicyclists, who are a disgrace to the pastime, while Tricycling includes Princes, Princesses, Dukes, Earls, etc. There are none of the upper circles who ride Bicycles. This is easily seen, and it is plain that the Tricyclists are altogether a better class than the Bicyclists, and require better accommodation on tours, etc. A new Tricycling Union has been formed, and could not that body make itself a Tricycle Touring Club as well? This would give it a greater advantage over the Bicyclists, who have two different bodies to do the work. Then the older men are Tricyclists, and a certain number of young men would always want to join their elders and superiors, and although this could not be allowed, yet there is no doubt, if the thing were worked right, that this would enable the Tricycling Union to get many of the present Consuls, etc., of the Touring Club to join us, and we could get assistance from men who know what work to do. Anyone who reads the papers can see that the Tricycling Union will be willing to separate from all Bicyclists, and, perhaps, willing to take the thing up. The Touring Club can not get only second-rate houses in towns, as so many Bicyclists misbehave, whilst the writing in Bicycling papers, and the slang that is put in, must be against the feelings of gentlemen as most Tricyclists are, and then the Tricycling Touring Club can be the governing body for all Tricyclists, and can keep all but gentlemen in the professional ranks,

and not admit them to the Club. Of course it is no use hurrying, and this should not be spoken of publicly until the things are more settled, but still it might be talked of amongst ourselves and the gentlemen who support the Tricycling Union (some of whom are in favor) might be consulted. As has been said by some of the best Tricyclists, they do not want to be governed by the Bicyclists, who are mostly young men in bad positions, whilst in most places the Consuls cannot get good houses because they are young and of no importance in their towns, and have to put up with bad houses. If you will talk this over with your friends, I will let you know what is done, and where the first meeting will be held. The first meeting will be private, and some well-known Tricyclists will be asked to preside. All tricyclists should act together, and refuse to have anything to do with the Bicyclists."

Castro Wants Reinstatement Badly.

Fred Castro, the San Jose rider who turned professional to ride in last year's six-day race and who quit after riding 400 miles, will likely be restored to the amateur ranks if the formidable petition that was gotten up by George Hannan and presented this week to Chairman R. F. Kelsey of the Board of Control of the National Cycling Association, has the desired effect with the officials of that body.

Castro, like many others may have done, made a great mistake when he came on from Salt Lake City to ride in the grind. He thought it would be child's play and that, anyway, it was a good chance for an outing and a trip to the great city of which he had heard and read so much about, but in whose glories he had not reveled. Castro was never in the same class with the professionals and in consequence he has not ridden since returning to the Mormon City.

A petition was gotten up praying that Castro be restored to the "simon pure" class, and Hannan was commissioned to present it to the National Cycling Association. The sheet was signed by a score of prominent Salt Lake business men, besides about fifty riders, including McFarland, Iver Lawson, Hopper, Hollister, Downing and others.

New Centurys Choose Officers.

At the semi-annual election of the New Century Wheelmen, San Francisco, these officers were elected: James Rasmussen, president; William Conrad, first vice-president; George McGrath, Jr., second vice-president; Carl Laye, financial secretary; George Rasmussen, re-elected recording secretary; Samuel W. Whitehead, who served the club faithfully for the past two terms as president, was chosen treasurer of the club; William Penn, sergeant at arms, and A. Greeninger, captain. Racing board: Jack McWhirter and Albert Wilkes; first lieutenant, D. Mainland; second lieutenant, George McGrath, Sr.

EXTINCT CLUBS ON THE ROLL

Charge Made Against Associated Cycling Clubs Which Involves Chief Officials

—Sad Decline of Association.

Unless some energetic house cleaning is done and some rapid shifts of memberships and delegates accomplished, the Associated Cycling Clubs of New York may have to find a new president and a new secretary-treasurer. Because the eligibility of their clubs has been questioned, the right of the present incumbents, Joseph Oatman and M. L. Bridgman, respectively, to hold office, of course, is at stake and a situation is precipitated that was narrowly averted three or four years ago, when the Century Road Club Association withdrew from membership.

In effect, Oatman and Bridgman, among others, are charged with being representatives of clubs which no longer exist except in their imaginations, the New York Motorcycle Club being the moving factor in the case; its delegates have been instructed to institute an inquiry to discover "who's who" and "what's what." Oatman stands as a delegate from the Metropole Cycling Club and Bridgman from the Metropolitan Bicycling Club, which latter was organized in the heyday of cycling by Bridgman, who then conducted a riding academy of that name. The former pupils and members long since scattered to the four winds and the "club," which is alleged to consist of two men, its organizer and Edward Gerbereaux, who also is a delegate to the A. C. C., has been the butt of many raileries. But Bridgman is a good fellow and until the present instance none had the heart to question the "club's" standing although the other member once retorted that they still had "the charter," making it appear that two men and a piece of paper may constitute a club.

The Metropole Cycling Club was of more recent origin but after a meteoric existence, and like the Metropolitan, it long ago passed in its checks. It has not held a meeting or elected officers, or collected dues for three years and if its dues to the Associated Cycling Clubs have been paid, an "angel" must have paid them. But Oatman also is a good fellow and in his time had been such a hard worker that none had desire to inquire into his qualification for office. The nearest approach to it was when the Century Road Club Association withdrew from the association after asserting that "dead" clubs were being carried on the roll and objecting to being outvoted by the ballots of delegates representing only empty names.

As a matter of fact, the Associated Cycling Clubs for several years have been little more than a debating society which has had a struggle to obtain quorums and

officers. Except to conduct the annual New Year's midnight race it has done nothing and but for Oatman it would have fallen apart. Until a disquieting flurry occurred early this year, he acted not only as president, but as secretary and treasurer, no one else being willing to accept the offices. Despite his long service and self-sacrifice, when an effort was made two years ago to tender him a testimonial of appreciation, gratitude was so rampant that sufficient funds could not be raised, their subscriptions being returned to the very few who had opened their purses.

Including the Metropolitan and Metropole, there are but six or seven clubs remaining in the association. Three of these are negro clubs, one of which is said to be as "dead" as the two white organizations whose life is questioned.

More Midnight Races Scheduled.

The Prospect Wheelmen, who have constituted the liveliest bona-fide cycling organization in the Associated Cycling Clubs of New York, and whose riders have been most prominent in the latter's annual midnight race on New Year's, have gone into the midnight race business on their own account. In addition to an open event, the Prospects are making a special bid for the entries of the youngsters who are most numerous in evidence on such occasions by instituting a class for A. D. T. messenger boys. The accidents that occurred on the A. C. C.'s last midnight scorch not being sufficient warning, a prize is offered for motorcyclists, also. The Prospects' affair will be started from their club house 811 East 144th street. The finish will be at City Island.

Darragon Defeats Nat Butler.

Louis Darragon, the champion pace follower of the world, defeated Nat Butler by five laps, in a three-cornered match race at 60 kilometres at the Velodrome d'Hiver, on Sunday, 9th inst. Antonie Dussot, well known in America, finished third, 11 laps behind Darragon. The distance, about 37 miles, was covered in 51:23½. At the same meet a match race in eight heats for the championship of the track for which the rather generous prize of \$2,000 is offered, was won by Gabriel Poulain, of France, who won both his matches, one being against Henri Mayer, of Germany. Ellegaard, Otto Meyer, Vanden Born and Dupre tied for second place.

Three Events for Freak Motorcycles.

Three motorcycle events have been added to the program of the Florida beach carnival which occurs next month. They have not been sanctioned and although designated "free for all" it is understood that the three races have been scheduled chiefly in order to give two specially built freak machines—one of 32 horsepower, the other of 24 horsepower—a chance to disport themselves.

How Rutt Lost the Six-Day Race

Was Due to Win With Fogler's Help but Failed to Get in Front and Fogler Simply Had to Stay There—Final Sprint Furnishes Other Surprises—Walthour the "Idol" and Fogler's Victory Not a Popular One.

Final Score—142 Hours:

	Miles.	Laps.
1. Root-Fogler	2292	2
2. Hopper-Downing	2292	2
3. Rutt-McFarland	2292	2
4. MacDonald-Coffey	2292	2
5. Mettling-Logan	2292	2
6. Pye-Clark	2292	2
7. Downey-Moran	2292	2
8. Georget-Georget	2292	2
9. Walthour-Bedell	2292	1
9. Breton-Samuels	2292	1

The record is 2,733 miles 4 laps, made by Miller and Waller in 1899. In last year's race, Root and Fogler, the winners, covered 2,260 miles 6 laps.

Usually after a six-day race there is always a prolific crop of "I told-you-so's." This year the comment of those "wise" individuals who always "know" the result in advance was plentifully burdened with "ifs."

As no one prophesied would be the case, Joe Fogler, of the National Athletic Club of Brooklyn, won for himself and his teammate, Edward F. Root, of the same organization, the fourteenth annual six-day bicycle race that was concluded in Madison Square Garden, New York City, last Saturday night, 15th inst. With eight teams tied for the final mile sprint Fogler won out under the most unusual conditions and surprised about 16,000 persons, including himself. For his victory was one of the most startling in six-day race annals.

At ten o'clock on Saturday night, the last day of the contest, eight teams were tied for first position, and at 10:01 all the riders not on an equality were called from the track. Two minutes were then given the contestants to make any changes for the final sprint and promptly at 10:03 the starter's pistol sounded for the final and deciding mile, with Emil Georget, Rutt, Clark, A. W. MacDonald, Fogler, Downey, Mettling and Downing left upon the track to decide the issue for their respective teams.

Late in the afternoon the news had leaked out that Fogler intended "pulling" Walter Rutt, McFarland's team mate, for the final sprint, and in view of the German's wonderful sprinting power the "wise" ones

hastened to bet a few dollars that the curly-haired Teuton would be the first of the eight sprinters to cross the tape. How the calculations were rudely upset is already too well known.

Although the yellow dailies had been crying "fake" for several days, and despite



JOSEPH FOGLER

the fact that the management had boosted the price of a sniff of foul air and a sight of the riders to two dollars and the speculators were asking five dollars and up for seats, probably at no time in the history of six-day finishes did Madison Square Garden hold such a multitude. The seating capacity of the big amphitheatre is reckoned at 12,000, so that 16,000 would be a fair estimate of Saturday night's crowd.

For the first two or three laps of the final mile the riders jockeyed for position, Matt Downey leading the first time around, Rutt, Downing and MacDonald being next in order. Fogler, who had been sandwiched in the middle, waiting to see what the other riders would do, came out in the third lap and Rutt tacked on. Then the Brooklynite swung down on the pole and began to unwind for all he was worth, the German

still sticking tenaciously to his rear wheel. For five whole laps they circled this way, Downey, MacDonald and Downing being well up all the time. Fogler was still in front at the beginning of the last turn. Just one almost imperceptible quiver lost the race for Rutt. He swung up the banking ever so little, just enough for Downing, who had been following him, to move up on the pole. Fogler had been instructed to keep on going and this was all he did to win the race. Four riders were close together as they flashed over the tape. Fogler was first about six inches ahead of Hardy Downing, Rutt was about the same distance behind Downing on the outside and little Matt Downey was fourth. A gap separated the others and they finished in the following order, Mettling, MacDonald, Clark and Georget. The judges gave fourth place to young MacDonald of Boston, though how they could have mistaken him for Downey is yet an unexplained mystery, for the "Scotch-Irish kids," as MacDonald and Coffey were called, later admitted that they were back in the second bunch that crossed the tape, and Coffey said: "Well, they gave us fourth place, what's the use of kicking?"

Fogler's victory was not popular. There was no mistaking that when the team paraded around the track after the race, and although there was great cheering and handclapping from the tape side of the Garden, the gallery gods and other "bums" howled their disapproval, for their favorite newspapers—the yellows—had said that because Walthour continually maintained a mile-a-minute sprint and yet failed to gain the lap his team had been penalized when MacLean was put out and Bedell taken on, that the race must be a fake and that Walthour was being discriminated against, and the gallery gods took all this rot for gospel truth. There was a cheer, however, when Hardy Downing walked up to Fogler, grasped his hand, and congratulated him. When Walthour did his "turn" the mightiest hurrah went up. Because of the supposed discrimination he was made a "popular idol" and was acclaimed accordingly.

Side Lights on Six-Day Race

From midnight until the finish there was practically no change in the teams. Then the eight teams that contested the final sprint were tied, with the teams of Walthour and Bedell and Samuelson and Breton one lap behind. Vanderstuyft and Stol were two laps behind, and Galvin and Wiley were not even figured to count as they were several laps to the bad and fast going to pieces. Vanderstuyft and Hopper had been badly injured in a disastrous spill that occurred early Friday morning, and the former was unable to hang on when the fast riding started. It was only after Stol had been on the track for fourteen hours during Friday that Powers suggested that the team withdraw, which it did about 1 a. m. Friday morning. Galvin and Wiley quit some time later. Not much of interest occurred from then until the finish, although Walthour made several grandstand plays by attempting to gain laps, and once had almost succeeded when one of the Georget brothers inadvertently took a tumble. Matt Downey also electrified the crowd at intervals.

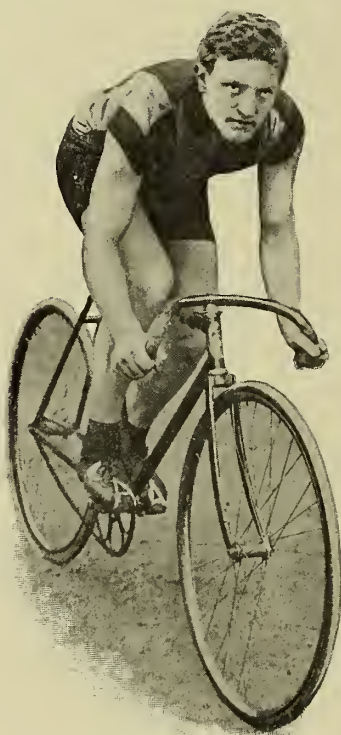
Of the sixteen teams that started in the grind ten were in at the "killing" on Saturday night. Hugh MacLean, of Chelsea, Mass., was the first put out, and he withdrew at 185.1 miles with a sprained shoulder. Menus Bedell broke his collar bone at 201.4 miles, when the remnants of the two teams—Walthour and John Bedell—formed a new team, being penalized one lap for the privilege. Schlee and MacDonald were forced to withdraw after riding 210 miles, and after a series of falls in which young MacDonald, the former amateur, was the principal victim. Edward Rupprecht also was injured by falls, and he and his partner, Floyd Krebs, had to give up after riding 208.9 miles. Hollister and Vanoni both went down in a general tumble early Thursday morning, the latter dislocating his shoulder. As Hollister was cut so badly that he could not continue, Samuelson and Breton formed a new team, getting set back one lap, or even with Walthour and Bedell. Vanderstuyft and Stol quit after the former's injuries and Galvin and Wiley because they had no chance for any of the prize money.

Probably the pluckiest rider in the race was Norman C. Hopper, winner of the First Sydney Thousand, and the fastest rider that Minneapolis ever produced. When he and Vanoni plunged over the guard rail Friday morning, Hopper was so badly cut about the head the official surgeon said that he was in no fit condition to continue in the race. Downing and Stol could have paired up but as it would have caused them to lose a lap, Hopper determined to stick and help his partner win the race. The pair got second and there were a good many in

the Garden that wished it had been first, for Hopper's courage was commendable.

Another rider who showed that all the grit and braveness are not confined to big men was John B. Coffey, the Boston midget. Just previous to the race he had a double carbuncle cut from his arm. Dr. Creamer advised him to give up thoughts of entering the race, but Coffey would not display the white feather and the team was given fourth in the finish.

Root is another rider who showed a re-



WALTER RUTT
Whose Arrangements to Win Went Awry

markable degree of fortitude. Root took a fall soon after the start and although his side pained him at times it was not discovered until after the race that he had ridden through it with a fractured rib. The discovery was made when Root went to a hospital on Monday night and had an examination made.

Root is the only three times winner of this time-honored grind. He was born in Providence, R. I., twenty-five years ago and began riding in 1900, turning professional in 1902. He is 5 feet 8½ inches in height and weighs 149 pounds. In 1904 he won the race with Oliver Dorlon as partner and last year was again the winner, with Fogler as his mate. Fogler is a New Yorker born and bred, and is 23 years old, 5 feet 11½ inches in height and weighs 169 pounds. He began riding in 1900 and joined the "money chasers" two years ago. Root and Fogler rode Iver Johnson bicycles, geared to 96 and with 6½-inch cranks, in the race.

Hardy K. Downing, who finished second,

is a native of San Jose, Cal., and celebrated his thirtieth birthday while on the track Monday. He began riding in 1894, turning professional on May 30th, 1896. He has been a consistent prize winner ever since and holds the one mile competition record of 1:51½. Hopper, his mate, is from Minneapolis, Minn., and is four years younger than Downing. Hopper's most notable victory was in winning the Sydney Thousand in 1903, although prior to that he made several amateur records that still stand. Hopper and Downing rode Columbia bicycles.

Walter Rutt, whose pictures have been mistaken for those of American champion, Frank Kramer, was born in Cologne, Germany, twenty-three years ago. He began riding in 1900, after completing his studies at college and turned professional almost immediately. Rutt is a noted sprinter and he has the credit of having beaten "Major" Taylor three times in succession. He held the German championship for two successive years, and last year won several events in Australia. This was his first attempt at six day grinding and he certainly made a remarkable showing, finishing fresh and strong and having gained two pounds during the week. Floyd McFarland is a native of San Jose, and was the old man of the race, acknowledging to 31 years. He started riding in 1893 and turned pro the following year. With the late Harry Elkes as his partner McFarland won the six day race in 1900 and the record for 3 hours, 4 hours, 7 hours and from 9 to 54 hours, made by his team, still stand. McFarland rode a Columbia bicycle.

So far as is known young John B. Coffey, of South Boston, who, with Arthur W. MacDonald, finished fourth, is the only one of the thirty-two riders that started in the grind who neither drinks, smokes nor chews. This fact only became known when Coffey refused to join the other boys in merrymaking after Powers paid off. Coffey was both the youngest and smallest rider in the race. He is 18 years of age, weighs 134 pounds and is 5 feet 4½ inches in height. Coffey and MacDonald rode Columbia bicycles.

According to the scorers the mileage for the first hour was 26 miles 1 lap, which, if correct, breaks the world's record of 25 miles and 2 laps made by Gougoltz and Kaser in 1902. No other records were broken but all the way through averaged much faster than last year. Although Miller and Waller have begun to think their record unbreakable, it must be remembered that when those figures were recorded the riders were not called from the track for an hour or so every afternoon and evening to permit the running of feature races and exhibitions. If the riders in the race just concluded had been kept on the track all

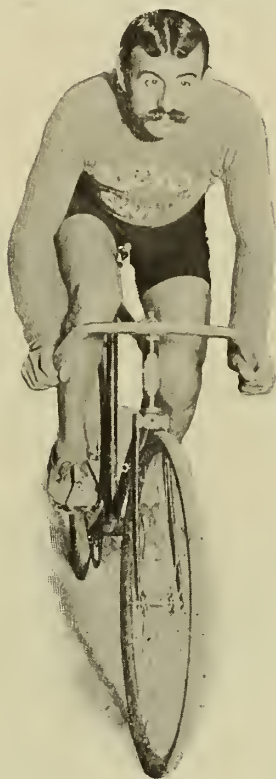
the time Miller's and Waller's record would have been erased, judging by the average time made.

From Thursday on the race was run under a torrent of hammer throwing, all the journalistic strong arms of the New York daily newspapers having suddenly taken it into their heads to exercise their muscles. Just why is not known but the reason therefore is thought to be because the expected hand-out was not forthcoming. Notwithstanding the fact that every newspaper in the city called the race a "fake," the attendance was rather increased than diminished and the general admission was raised to one dollar on Wednesday, two days before the usual time, and on Saturday the price of a whiff of stale air cost two "bucks," and the reserved seats in proportion.

Why do such crowds of people go to the six day race? That is a complex question not easily answered off-hand. The daily newspapers declare that it is because human suffering fascinates them. That is far from being the truth because the riders undergo little or no suffering, which is qualified by the statement that nearly all the riders gained weight during the race. They go to see then, not the triumph of brawn but the triumph of brain. Will power, determination, perseverance, all of these things interest the great public, and are honorable qualities which they approve. Therefore it must be partly because the mental, not the material, features of a six day race draw the crowd. Somebody has said: "If you were to advertise that at a certain hour, a man, or better, a woman, would jump upon Brooklyn bridge from the river, not off it, and you could establish accommodations to witness the performance, you'd depopulate, for the time being, all the cities within one hundred miles of New York." An actual tragedy will get the public but motion, action, speed also draw them. It's the hot and cold exhilaration of it. That's why the newspapers explain the crowds by the "bug" theory. The human "bug" is 90 per cent. charitable and kind and considerate, and if it were possible to have a killing at a certain hour and the fact were announced it is doubtful if it would add one to the attendance or chase one away. Every one of the ten thousand or more will make a mental gamble that some of the riders will get hurt, but not one of them would have it happen if he could prevent it. It is a strange vagary of the human mind that will pay money on the chance of seeing that which it would pay more to avoid seeing. In view of which the "bug" theory doesn't seem so very far off, after all.

Of course a whole lot of people go to get buncoed. They know they are going to get buncoed good and plenty as soon as

they invest any of the ready in any one of the numerous attractions, or rather swindles, that beckon alluringly to victims from the arena or down in the cellar. It would not seem like a six-day race without its side-show. In the arena where the usual soda-water fountains, ice cream fountains and the young man who guesses within three pounds of your weight for a nickel. Down stairs, "subway" some call it but it is more like Hades, is where the characteristic six-day stench originates. An indolent crowd keeps moving around a foul smelling



EMIL GEORGET
One of the Two Foreigners "In the Money"

bar, while just opposite sizzling sausages give a faint suggestion of stories one has read of the alleged horrible stock yards. Everywhere cappers lure on victims to invest a dime in three shots at something for nothing and once in a while a real shell game or three card monte is in progress off in some corner.

To be honest there appeared to be more of the under world element present at the race this year than in former years. The daily reports state that all the crooks from the Bowery were on hand and plied a lively trade. Whether this is true or not the *Bicycling World* cannot state, as such a class of crooks do not pester the bicycle business. It is true that there was absolutely no police protection until the manager hired some Pinkerton race track detectives on Wednesday, after the criticism and complaints of robbery, and so forth, got so bad as to demand an investigation. Fights among the spectators occurred once in a while but any disturbance was soon

quelled. The city fire department also paid some attention to the six-day race after it was alleged that all but one of the exits were closed by the track, and their investigations resulted in two more exits being provided. There is no record of the department investigating the annual horse show, where practically the same condition exists.

Because there was some little trouble last year when the riders were paid off a number of curious persons hung around Madison Square Garden on Monday when the most interesting part of the race—to the riders—took place. Those who nosed around for scandal went away disappointed, however, for each and every man, when he left the pay room, smiled, and when asked if he was satisfied, replied in the affirmative. A former well-known pugilist who hangs around Fourteenth street, was around looking for money he claimed two of the riders owed him for protection. He said that when the public demonstration against one of the riders threatened to take the form of violence, and when some of the toughs threatened to lynch one of the riders (sic) he it was who took a stand in front of the camp and implored them not to touch the boys, as he was in charge of the team in question. It was funny to hear him tell about it and one of the riders that the strong arm man said he "kept from being killed" said: "Why, I never heard of that 'guy' before; it's a swell chance he has of getting anything from me." It later developed that the ex-prizefighter had a different interest in a part of the team, but that is neither here nor there.

A pretty piece of by-play was witnessed by those in the Garden during the early hours of Tuesday. It was started when one of the "near-ladies" handed Vanoni a large Italian flag. Vanoni carried the square around in triumph for a few laps, when a party of women in a box on the opposite side called for Walthour when the riders came around, at the same time holding out an American flag. Walthour did not take the flag at once so when the bunch came around again little Matt Downey, the popular Boston Irish-American, rode up close to the boxes and snatched the flag. He then started a sprint and carried the flag around at the head of the procession for a number of laps. The women found another flag for Walthour, but the Southerner was evidently "sore," and did not even attempt to ride in front with it. This was indirectly the cause of some bad feeling that became more and more apparent during the week.

There were more makes of bicycles represented in this than in the race of a year ago. Root and Fogler and the Bedell brothers rode truss frame Iver Johnsons, and the winning wheels have attracted quite some attention this week at the Johnson

The Great Six-day Race at Madison
Square Garden is Over.

JOE FOGLER and EDDIE ROOT
won the same on

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New York branch, 99 Chambers street, where they are on exhibition. Fogler won the race on a pair of tires that have a history, it might here be added. They were a pair of specially constructed French racing tires made for Frank Kramer when he went broad this year, and the ones upon which he won the Grand Prix.

The men who bore the brunt of the work and received little credit for it were the following officials:

Referees—R. F. Kelsey, C. R. Klosterman, C. B. Bloemcke, Victor Breyer, M. L. Bridgeman, S. Wallis Merrihew, John Valentine, Alfred Reeves, John Barnett and Dai H. Lewis. Judges—Dan M. Adey, A. B. Eifler, Paul Thomas, R. A. Van Dyke, Tom Roe, A. G. Armstrong and Sam R. Morrison. Timers—Charles J. Dieges, P. Clust, John J. McHugh, J. B. Boyle and James J. O'Brien. Chief Scorer—Al. Copeland. Assistant Scorers—Peter Wollenschlager and Harry A. Glieman. Clerk of the Course and Starter—Al. Copeland. Assistants—Frank L. Valiant and C. W. Hoeckley. Announcers—Charles Harvey and Peter Prunty.

Fourteen makes of bicycles were ridden in the race, of which seven were American, five foreign and two specially built machines. Root, Fogler, John and Menus Bedell were on Iver-Johnsons; Downing, Hopper, McFarland, Krebs, MacLean, Walthour, A. W. MacDonald and Coffey were mounted on Columbias, and Moran rode a Cleveland; Pye, Galvin, Mettling, Logan and Samuelson had Reading Standards; Rupprecht and Downey were on Yales, Schlee and Urban MacDonald on Racycles and Hollister rode a Hudson. Vanderstuyft rode a Roy Special and Wiley a special built machine. The foreign machines represented were the Clement, Brenabor, Premier, Alcyon and Peugeot. With the exception of John Bedell and Ernest Pye all the riders used a 96 gear and 6½ inch cranks.

Exclusive of the bonuses, the money the teams received was apportioned as follows: Root and Fogler, \$1,500; Hopper and Downing, \$1,000; Rutt and McFarland, \$750; MacDonald and Coffey, \$500; Mettling and Logan, \$300; Pye and Clark, \$250, and Downey and Moran, \$200. The guarantee money the riders received is not public property, of course, but it varied from nothing to \$1,500.

Although two or three so termed sports offered a large sum of money to the team gaining a lap Wednesday, none succeeded in getting the purse. Two or three women in a box though played a great joke on Vanoni and others of the foreign riders when they held out stage money to them on Thursday morning. The foreigners grabbed it eagerly.

RICH POTS FOR PACED RIDERS

Dickentmann Leads the List but Nat Butler Keeps the Wolf Far Away—Sprinters' Earnings Pretty Slim.

Germany apparently is a very good gunning ground for foreign pacefollowers, according to the statistics compiled by Rad Welt for the riding season of 1906. Piet Dickentmann, the Dutch pacefollower, has won more prize money than any other stayer, his earnings amounting to \$10,872, while Guignard, the world's one and two hour record holder, at present in America, is a close second with \$9,792. Contenet, the Frenchman, is third with \$5,700, while Nat

Vanden Born, \$573; Schilling, \$265.20; Emil Friol, \$249.60, and Kramer, \$144.

Walter Rutt, who resembles Frank Kramer, and who finished third with McFarland in the six-day race just over, has won more than any other German sprinter. His prize money amounts to \$3,368.64. Henri Mayer is second with \$1,617.60, and Otto Meyer is third with \$1,235.52. Doerflinger, the big Swiss who rode in the 1905 six-day race, has won, in Germany, \$582.96, and Oscar Schwab, who formerly lived in America, but who now calls himself a German, has taken \$350.40; Schwab's biggest winnings have been in France. The German pace followers seem to have fared bad in their own country, Roesenlocher being the biggest winner with \$1,430. Thaddeus Robl succeeded in annexing \$1,209.60 in his native land.

Cruel Fate Nips Budding "Champeen."

Whether Peter Schudleskie, the "champeen" of Sugar Notch, Pa., who told the village folk that he was going to ride in the six-day race with "Johnny Moran, of Buffalo," and in consequence got the "boys" to raffle a bicycle to procure funds for him to reach the great city, as was detailed in the *Bicycling World* several weeks ago, is not known, but suffice it to say, some lad from "Pa." got here and came near not getting back. He gave his name as Ollie H. Minton and said that he was a farmer lad and champion bicycle rider of Washington, Green county, Pennsylvania. "Ollie" landed in Manhattan with sixty dollars, a new overcoat and a satchel containing his Sunday-go-to-meetin' clothes. He soon found the way to Madison Square Garden although the din of the clanging trolley bells and tooting automobile horns bothered him a little at first. There he met several affable strangers to whom he confided and told of his hopes of graduating from the plowshares, and the daily routine of chores, and becoming champion bicycle rider of the world. The strangers took quite a personal interest in him, so personal that they escorted him to a nearby lodging house and agreed to stay with him overnight and then fix it up so that he could ride in the six-day race, the next day. When Minton awoke the next morning and was about to congratulate himself that he did not have to milk the cows or split kindling, he turned over in bed and found that his "friends" of the night before gone. Later he found that his new overcoat, his Sunday-go-to-meetin' clothes and his sixty dollars had taken flight during the night. Ollie got back to the farm a day or two later, after much telegraphing, a sadder but wiser boy, and somewhat inclined to believe what the newspapers said about the race being a "fake."

"The A. B. C. of Electricity." Price, 50c. The Bicycling World Company, 154 Nassau Street, New York City. ::

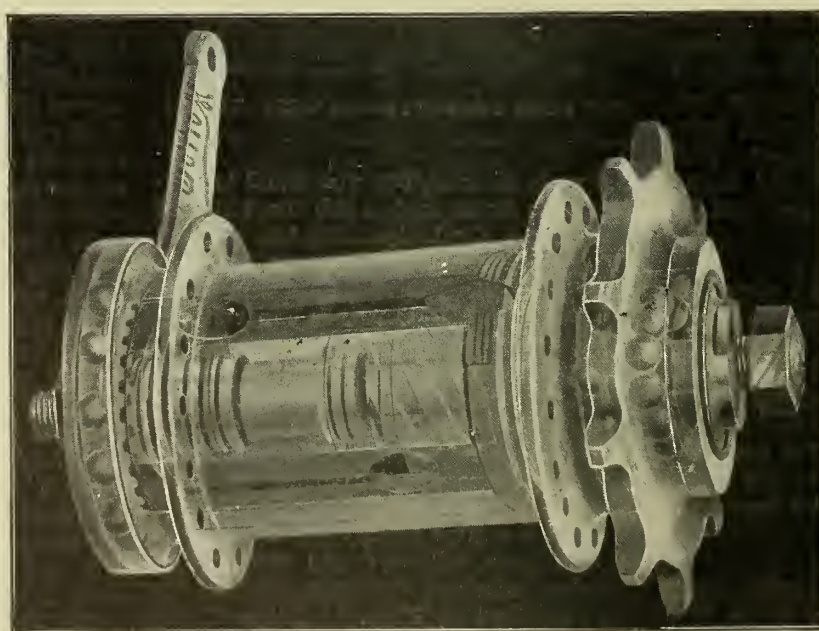
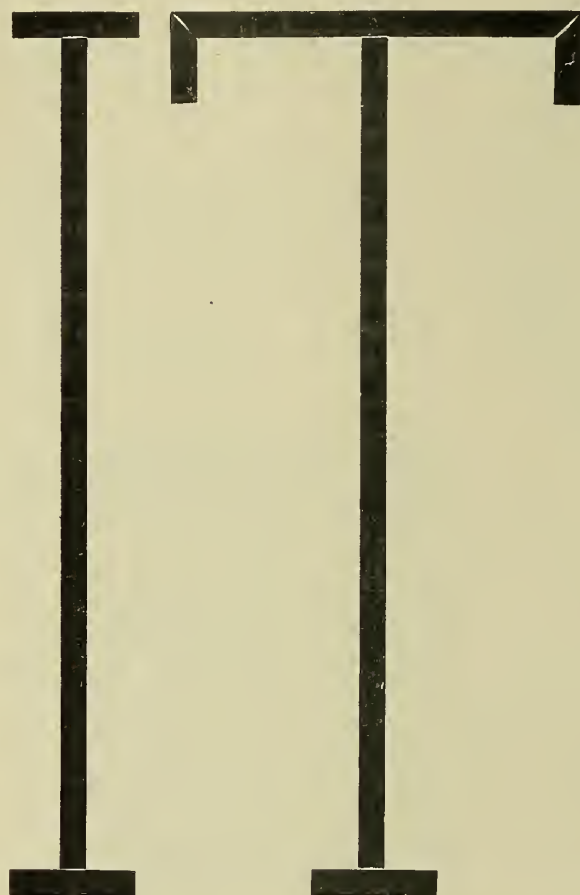


NEW YORK BRANCH: 214-216 WEST 47TH ST.

Butler, of America, has won \$5,652 in Germany this season, and as this is not all that the veteran Cambridge man has corraled this year, the "old man" is not doing so badly after all. Ivan Goor has won \$4,752 and Darragon \$4,056. Arthur Vanderstuyft, the Belgian six-day rider, has won \$3,420, while Walthour, formerly the idol of Germany, has "copped" but \$3,240. Simar and Ryser have won respectively \$2,688 and \$2,178, and even "Woody" Hedspeth, the American negro who rubs Bader and rides sometimes, has won \$1,392.

There is a great discrepancy between the foreign pace followers and the foreign sprinters' winnings, the highest amount being accredited to Thorwald Ellegaard, the Dane who won the world's sprint championship at Geneva last July; his winnings in Germany total \$1,981. Kudela is the only other rider whose winnings amounted to four figures and his were \$1,483.20. The winnings of the other foreign sprinters are as follows: Gabriel Poulain, \$592.40; Charles

THE MORROW STILL IS



ECLIPSE MACHINE CO.,

Elmira, N. Y.

TICKLING THE CARBURETTER

Practice that is Overdone by Motorcyclists
—Troubles that are Invented and that
Sometimes Result.

Whether from force of habit, or the fact that they think it is the proper thing to do because every one else does it, the majority of motorcyclists regard it as a necessary preliminary to starting to "tickle the carburetter." Although anything said on such a subject naturally can be only by way of generalizing, the fact that after a short experience in handling it the average rider becomes acquainted with most of the peculiarities of his own machine, is not lost sight of. But next to knowing his machine, the motorcyclist should see that his treatment of it is based on that intimate knowledge that only comes with close acquaintance and long experience. And as motors differ so do carburetters; with some of them it is necessary that the level in the float feed chamber be high, in others not so high and in still others the fuel level should be but the slightest fraction of an inch below the spray nozzle. Thus some carburetters flood easily while others are never guilty of it.

The whole matter resolves itself into the single question as to whether it is necessary to depress the float before attempting to start the motor or not. And there are doubtless a great many cases in which if it could be properly answered there would be far less difficulty in getting the motor under way. With the average motorcyclist, to flood once means to flood again should a prompt start not reward initial efforts at the pedals, little thinking that each application of the remedy but aggravates the disease. It is quite as difficult to start on an over rich mixture as it is with one that is lacking in sufficient gas to render it explosive. As the amount of suction exerted by the piston on the inlet valve with the motor turning at the slow speed that can be attained in starting, cannot be other than very small, it is evident that tickling the carburetter serves to start the spray through the nozzle and create a small amount of mixture.

But continuing the process soon floods the carburetter and as the quantity of air supplied is very small and cannot be increased to any great extent before the motor starts, it is evident that flooding is apt to fill the mixing chamber with almost pure gasoline vapor on which the motor naturally will not start. Numerous cases have come to light where it has taken anywhere from ten minutes to an hour to get the motor under way for no other reason than that constant tickling of the carburetter prevented the formation of a mixture

of proper proportions to permit the motor to take up its cycle.

The majority of motors will start without touching the carburetter and there are a great many more in which the process of starting is rendered far easier by the moderate application of attention of this sort. And here there is another noticeable thing—not a few motorcyclists tickle the carburetter much as they would ring for a waiter when in a great hurry. They give the pin several vicious jabs that all but unseat the float and the wonder is that this delicate method does not have the result indicated oftener; that it is apt to do so in the course of time goes without saying. There is no necessity whatever of this hammering on the float pin nor are successive blows required to accomplish the desired end. Press it down easily with the thumb as far as it will go and hold it there for a moment; then release it and the same object will have been attained in far less time.

How Tubing May be Bent.

There is considerable knack required to make a good job of bending steel tubing with the meagre facilities afforded by the average repairman's shop but with a little care and by following the proper method there is no reason why a goodly measure of success should not meet the efforts of even the novice. The piece to be bent should be rammed full of fine, dry sand which has previously been sifted. This charge is to prevent the tube from collapsing upon itself under the strain of bending as it is bound to do unless this precaution be taken. The sand should be kept in place by two slightly tapered steel plugs driven in at each end.

The desired curve having been ascertained it should be reproduced in a block of wood or heavy plank and sheet asbestos fastened in it as a lining in order to prevent the wood from taking fire. The tube is heated to a cherry red with the blow pipe for some distance either side of the place at which the bend is desired. The actual bending may then be accomplished with the aid of the vise or in any other way the conveniences of the shop may make possible, using the curve in the board as a gauge, or one end of the tube may be made fast to one end of the groove in the board and the other bent around until it conforms to the curve desired. To facilitate the carrying out of the occasional job of this kind that comes to the repairer, nothing is more useful than a block of hard wood with several holes in it about the sizes of the majority of tubing usually employed. The asbestos may be omitted in this case as the slight amount of burning will always occur just where the sharpest point of the bend is required.

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The Week's Patents.

837,973. Water-Cycle. Allie L. Stand-ard, Tuscola, Tex. Filed Sept. 29, 1905. Serial No. 280,647.

Claim.—A water-cycle including a plurality of substantially cylindrical floats arranged in triangular form, said floats being each provided with a pointed terminal and having parallel top, side and bottom walls and inclined end walls, a frame connecting said floats, a steering-head forming a part of the frame and upon which the front float is pivotally mounted, a propeller-shaft journaled in the supporting-frame and having its free end inclined downwardly between the rear floats, a propeller carried by said shaft and disposed substantially in alignment with the front float, the side and bottom walls of the rear floats being smooth

and unobstructed, and a longitudinally-disposed fin depending from the bottom of the front float between the pointed terminal and inclined end walls thereof and having its free end extended below and disposed in alinement with the apex of the inclined end walls of said float.

838,303. Method of Manufacturing and Assembling Ball-Bearings. Robert Conrad, Berlin, Germany. Original application filed Feb. 23, 1904. Serial No. 194,894. Divided and this application filed May 18, 1906. Serial No. 317,468.

Claim.—1. The method of manufacturing and assembling a ball-bearing into a unitary structure the parts of which hold each other together, which consists in forming inner and outer rings having opposing grooves the sides of which are uninter-

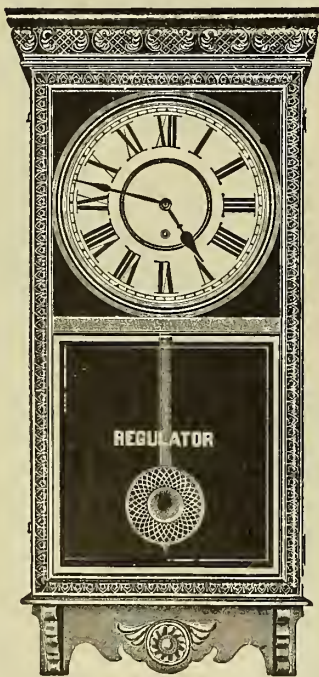
rupted throughout their circumference, and which are separated by a distance less than the diameter of the balls when the rings are concentric, placing said rings eccentrically to each other to widen the space between said edges at one side to a width greater than the diameter of the balls, introducing through said space a limited number of balls extending when in contact with each other only partly around the raceway formed by said grooves, and restoring the rings to concentric position and introducing spacers between the balls to distribute them substantially entirely around the raceway so as to prevent the rings from returning to the eccentric position.

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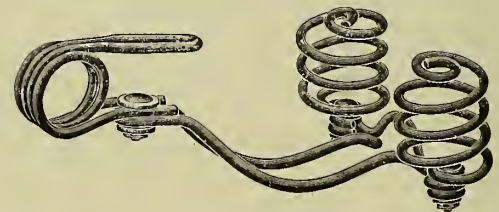


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THE BICYCLING WORLD and MOTORCYCLE REVIEW

FOUNDED 1877

Volume LIV.

New York, U. S. A., Saturday, December 29, 1906.

No. 14

STOREKEEPERS ARE AWAKENING

Active Demand Arising for Motorcycle Parcel Carriers—Experience of Laundrymen as a Striking Example.

"While the demand for motor bicycles has quickened substantially, the inquiries that are reaching us indicates that there is a fairly general awakening also on the part of storekeepers to the value of the motor cycle parcel carrier," remarked George M. Hendee, president of the Hendee Mfg. Co., one day this week. "The volume of correspondence on the subject that has reached us during the last few months has been surprising.

"It is odd how some of the commercial converts are made, too," went on Mr. Hendee. "We recently had a good instance of it right in Springfield. We had placed an Indian van at the disposal of a laundry firm and it had given splendid satisfaction but the laundrymen were skeptical about the service it would render during the winter and could not be persuaded to buy it outright. We had almost forgotten the matter until recently when the laundrymen called on us and announced that they were ready to buy the van. Of course, I was curious to discover what had influenced their sudden decision and soon found out that the death of one of the firm's horses was at the bottom of it.

"Well, the long and short of the story is that although we've had good sleighing in Springfield for about three weeks, the van has been doing duty every day. The firm has sold one of its wagons, has dispensed with a \$2 per day driver and instead is employing a boy at \$8 per week to operate the motorcycle van; quicker deliveries are the rule, of course, and the boy is able to do about three hours daily work in the laundry itself.

"I believe that the demand of laundrymen

alone will keep us busy turning out the vans," was the concluding remark of Mr. Hendee.

Sherman Proves Walking is Dangerous.

After riding a bicycle for many years and a motorcycle ever since the very first crop made its appearance, George W. Sherman, sales manager of the Reading Standard Cycle Mfg. Co., has discovered that walking is more dangerous than either. While treading on the ice-covered sidewalks of Reading one day last week, he slipped and fell, the fall fracturing his right arm near the elbow. He is now signing checks with his left hand.

To Produce a Tire Filler.

The Elastro Mfg. Co., Hartford, Conn., has been organized under the laws of that State to manufacture a rubber compound for filling tires. Its officers are: President and treasurer, Halsey B. Philbrick; vice-president, Charles H. Cooley; secretary, Edward S. Young, and Charles H. Cooley, Jr., and Leroy S. Lewis, all of Hartford.

Royal "Gets Its Papers."

The Royal Motor Works Co., Worcester, Mass., has been incorporated under the laws of Delaware with \$100,000 capital stock. Its declared purposes are to produce motor cars, motorcycles and vehicles generally. The incorporators are not named.

Price of Tandem Goes Up.

The price of the three horsepower Reading Standard motor tandem has been advanced from \$275 to \$300. The cost of manufacture has proved greater than the original estimate, hence the increase.

Accessories Association to Meet, Too.

The Cycle Parts and Accessories Association has called a meeting for January 16th at the Hotel Knickerbocker, New York. The Cycle Manufacturers' Association meeting occurs on the same date.

POPE FILES HIS ANNUAL REPORT

Business Runs Away Up Into the Millions but Concentration and Economizing Still is in Progress.

While the great preponderance of values contained in it represents automobile business, the Pope Mfg. Co. is still so deeply concerned with bicycles that its annual reports are of no small interest to the cycle trade. The report for the year 1905-06—the Pope year ends July 31st—is, therefore, of as much interest as ever and while the amounts run well up into the millions, the gross sales reaching to nearly \$8,000,000, the figures indicate quite clearly that the outlay is of corresponding magnitude and that automobile manufacture is not the veritable "gold mine" that popular fancy pictures it to be.

The comparative summary of the business for the three years of the Pope Mfg. Co.'s existence is as follows:

Yr. July 31.	1905-06.	1904-05.	1903-04.
Earnings ...	\$7,723,028	\$7,801,145	\$7,226,589
Expenses ...	6,429,469	6,496,395	5,995,793
Net	\$1,293,612	\$1,304,749	\$1,230,796
Other income	130,813	†753	62,158
Tl. income	\$1,424,426	\$1,303,995	\$1,292,954
Exp. and int.	1,195,288	1,216,775	1,241,961
Balance ...	\$229,166	\$87,219	\$50,992
Extr'y losses	138,571	—	—
Balance ...	\$90,564	—	—

†Loss.

In his report, President Albert A. Pope says:

"The company took possession of nineteen factories located in thirteen different towns or cities. Seven of these plants were at that time inoperative; five factories were equipped for the manufacture of bicycles; one was manufacturing steam and gasoline automobiles; one was making electric cars;

CARBURETTER DEVELOPMENT

Features of a Foreign Device That is to be Pushed in America—Four-cylinder Improvements.

In addition to importing and pushing the sale of the F. N. four-cylinder motor bicycle, the Ovington Motor Co., who next week will take possession of enlarged premises at 2202 Broadway, New York, are to make a strong effort to popularize the F. N. carburetter for use on American machines. A stock of them is being brought over from the factory in Belgium and the patronage of both the motorcycle manufacturer and the individual rider will be sought.

The carburetter, which is here illustrated, incorporates a number of features that commend it to notice. It is provided not only with a warm air inlet to take heated air from the engine and a compensating auxiliary air supply throttle which automatically regulates the mixture to the speed of the motor, but it has also an additional auxiliary air valve, hand operated, which permits the mixture to be regulated to the finest point for special purposes, as for racing, where the last ounce of power is desired. This new carburetter is provided with an ingenious filter plug that serves a convenience only the experienced motorcyclist can fully appreciate. If dirt or any other foreign matter finds its way into the gasolene this filter plug collects it; unscrewing the plug the dirt is found in a small gauze cup provided for the purpose. Screws are also placed in such positions as to permit their removal when it is desired to clean the various carburetter passages. It is not necessary to dismantle the new carburetter in order to clean it; simply removing these screws is all that is required.

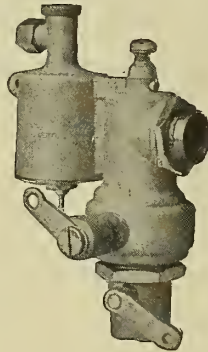
To demonstrate the efficiency of the carburetter the Ovington people have a knack of leaving their four-cylinder motor bicycle out in the cold for an hour or so; then merely by priming the carburetter they say they will prove to anyone that the engine can be started by a one-inch movement of the pedals.

The carburetter is not specially designed for four-cylinder machines but is applicable to any "single" on the market.

The four-cylinder motor itself has been considerably improved. "One horse" has been added to its power, the rating now being $4\frac{1}{2}$ horsepower at 1800 r. p. m. The cylinders are cast separately with compartments for each in the crank case, thus making practically four individual engines; the compartments assure that the oil for each cylinder is always there under all parent celluloid through which the rider conditions. In each of these compartments is a little port or "window" of trans- may look and thereby definitely ascertain the exact quantity of oil remaining in the

crank case at any time. Splash plates also are fitted in the crank case and in such a position that excessive oil cannot reach the spark plugs and cause them to foul.

A lamp bracket made integral with the machine is a new feature, the Ovington Co. importing a separate generator headlight to fit it. Improvement in the muffler and



in the combined stand and luggage carrier are among the other F. N. refinements.

Eccentricity in Frame Design.

A bicycle frame of somewhat novel design has recently been put upon the market by a French firm. The seat pillar is directly above the rear sprocket, while a curved strut in the fore part of the frame leading from the top tube to the bottom bracket, is a characteristic feature of certain French machines. Between this member and the lower end of the bent tube is an arched member which completes the queer-looking structure. Among the advantages claimed for this eccentricity in frames are increased stability, less front wheel vibration, greater hill-climbing power and less chain friction.

Sharing the 3-in-One Profits.

On Christmas of this year, the G. W. Cole Co., manufacturers of the widely known 3-in-One oil, put into effect a profit-sharing plan which is to be followed regularly hereafter. Each of the company's employees in both the office in New York and in the factory at Rahway, N. J., received a bonus, the distribution being made on the basis of the wage received by each individual. As the year had been the best in the history of 3-in-One, some of the amounts were of very substantial proportions.

France Develops Another Freak.

One of the most recent outcroppings of French genius takes the form of a bicycle known euphoniously as the "Fauto-Casor" and which evidently is the product of one who is accustomed to sit down to his work. It comprises essentially a sort of small bucket seat mounted well over the back wheel and inclined backward slightly so that the rider, once mounted, assumes a sort of a half-reclining posture. To assimilate the remainder of the machine to this posture, the crank hanger is raised to a point nearly two feet above the ground, so

that the pedals barely clear the front wheel, while the handle bars are extended backward after the fashion employed in motor driven pacing machines. Thus the crank hanger is practically in line with the crown of the front fork, while the ordinary down tube has altogether disappeared and in its place is found a short member leading from the bracket cluster to the middle of the upper tube.

The Cleaning of Ball Bearings.

While it is perfectly possible to clean a ball bearing after a fashion by turning the machine on its side and pouring kerosene through from end to end of the shaft, it should be borne in mind that unless it is thoroughly removed by spinning the parts, the oil put in afterward will be diluted by the remainder and will soon leak out. As a matter of fact, the last remnants of the kerosene are very likely to contain all the debris which it is desirable to get rid of. So that it is far better to dismount the parts and clean them thoroughly or not at all.

Rubber Balls for Battery Packing.

For packing batteries into their case, the use of small rubber balls has been suggested by one who claims to have found them all that could be desired. By obtaining several of various sizes, it is possible to pack the cells all around, and the result is that instead of a hard and unyielding bed, such as is furnished by waste or folded cloth, they are always resilient and yet never allow the cells to jolt against the sides of the case. This method is recommended particularly for accumulators.

To Make Speedometers for Motorcycles.

The Prospect Motor Mfg. Co., Brooklyn, N. Y., is making ready to place on the market the Simplex speed indicator, an instrument specially designed for motorcycle use. It will operate by a friction wheel in contact with the front tire and will be applicable to wheels of all diameters. The dial will register from 1 to 42 miles per hour and what is of particular interest, the device will list at a popular price—\$5.

When the Muffler is Choked.

A choked muffler is an evil which is far more prevalent as a cause of lost power than commonly is supposed. Where the position of that useful appurtenance is such that it receives a full blast of the dust and mud from the front wheel, it should be watched and occasionally be cleaned.

Helps to Remove Stubborn Tire.

A tire which has rusted to a steel rim sometimes may be removed intact after thoroughly wetting the joint with gasolene. As this not simply dissolves the rust but also eats into the rubber, it should be used with due care and cleaned off as soon as possible.

one was producing cold rolled steel and four factories were putting out miscellaneous steel products.

"The five bicycle factories had a capacity for a much larger quantity of goods of this class than the market could possibly absorb, and in order to produce the right kind of product on an economical basis the bicycle business had to be concentrated and done in fewer factories. This policy left us with a larger number of unoccupied plant and with the attendant expense of maintenance and care until they could be sold or rented. It also gave the company a larger unused surplus of machinery and tools, perfectly good for manufacturing purposes, but absolutely useless as an idle equipment. The only alternative was the sale of the second-hand equipment.

"The four plants devoting their attention to miscellaneous steel products had originally been operated for the manufacture of bicycle parts. The decline, however, in the bicycle business had so effected these factories that it was not possible to operate them without a loss until other lines were developed in such a way as to enable us to utilize to advantage both the factories and machinery with which they were equipped.

"Of the seven inoperative factories four have been sold and three are rented. The bicycle business formerly done in five different plants is now done in three, but still further concentration is in process, and in a short time but two plants will produce bicycles, but they will be equipped with such improved facilities that their capacity will be equal to the demands and the cost of production will be reduced.

"The business of the four plants employed in miscellaneous products has been liquidated, the machinery and tools sold and the factories themselves rented. The factory producing cold rolled steel is making good progress and steadily increasing its business in this line. Two factories manufacture only gasoline automobiles; one plant electric automobiles, and one produces both bicycles and automobiles."

President Pope reports that a large loss was sustained in the destruction of the San Francisco branch but frankly admits that that establishment and all the other branches were discontinued because they had proved unprofitable. He continues:

"In the liquidation of the properties for which the company had no use in its manufacturing operations a conservative policy has been followed. There have been large shrinkages but much smaller than there would have been if time and care had not been used to liquidate them in such a way as to obtain the best prices possible.

"The factories now operated are running over time and are full of work. The orders already received for the product of the current year seem to guarantee the sale of the entire production of all the factories with every probability of an increased output and larger sales over that of past years.

STATEMENT OF EARNINGS

For the Year Ending July 31, 1906.

Gross Sales		\$7,723,082.38
Deduct Manufacturing and Producing Costs:		
Operating Expenses	\$6,137,403.43	
Regular Repairs and Maintenance	103,811.75	
Renewals of Loose Tools	188,254.23	6,429,469.41
Earnings from Operations		\$1,293,612.97
Miscellaneous Earnings:		
Dividends from Investments	\$6,220.30	
Rentals from Properties, including Crescent Factory.	34,202.55	
Interest and Discounts	85,155.39	
Miscellaneous Profits	5,234.79	130,813.03
Total Gross Earnings		\$1,424,426.00
Deduct—Expenses:		
Selling	\$733,688.23	
Advertising	203,265.62	
Administration and General	72,212.29	
Commercial Discounts and Interest	23,657.82	1,032,823.96
Balance Gross Profits from Operations		\$391,602.04
Deduct—Fixed Charges:		
Depreciation of Plants and Equipment, including Improvements written off	\$86,366.99	
Interest and Discounts on Loans	76,099.49	162,466.48
Net Profits for the Year from Operations		\$229,135.56
Deduct—Extraordinary Losses and Expenses:		
San Francisco Fire Losses	\$50,500.00	
Losses on Sale of Plants and Equipment	36,739.20	
do Liquidation of Providence Branch	35,000.00	
do Mechanical Cashier	16,332.13	138,571.33
Net Surplus for the year applied in reduction of Special Advertising incurred in the first season of the Company's business		\$90,564.23

ASSETS:

Cost of Properties:	
Real estate, buildings, plant, machinery and other permanent investments, at July 31, 1905	\$18,553,986.64
Deduct—Net adjustments	12,342.70
	\$18,541,643.94
Additional expenditures on construction during the year	338,469.03
Deferred Charges to Operations: (After applying in reduction thereof the profits for the year, \$90,564.23)	268,857.41
Current Assets:	
Raw and worked materials, supplies and finished product on hand, including advances on rubber goods for future delivery	\$3,323,710.87
Accounts receivable less reserves	787,054.37
Bills receivable	39,189.30
Miscellaneous investments	172,388.00
Cash in Banks and on hand	245,843.06
	4,568,185.60
	\$23,717,155.98

LIABILITIES.

Capital Stock:	
Authorized:	
25,000 shares of 1st preferred of \$100 each	\$2,500,000.00
100,000 shares of 2nd preferred of \$100 each	10,000,000.00
100,000 shares of common of \$100 each....	10,000,000.00
	\$22,500,000.00
Less—Acquired from reorganization committee or purchased and held in treasury —1,090.24/100 shares of 1st preferred and 13,669 shares of 2nd preferred of \$100 each	1,475,924.00
	\$21,024,076.00
Capital and Property Reserves:	
Discount on capital stock purchased.....	447,956.37
Reserve against losses on liquidation of closed plants and accruing under leases acquired	517,450.99
	965,407.36
Reserves for replacements and accrued renewals	141,482.92
Current Liabilities:	
Bankers' loans	\$1,197,500.00
Accounts payable	260,972.50
Customers' deposits on orders	45,354.28
Pay rolls accrued	58,503.42
	1,562,330.20
Surplus:	
As at July 31, 1905... (Net surplus for the year applied in reduction of special advertising incurred in the first season of the company's business, \$90,564.23, per Exhibit "A")	23,859.50
	\$23,717,155.98

"The concentration of manufacturing into fewer factories must result in decrease of costs of making. This would be a natural and direct result of the elimination of the expenses of the greater number of factories which have been operated in the past. The closing of branch stores will result in a very considerable decrease in expenses as arrangements already made for the sale of our goods through agencies insures us as great a volume of business as heretofore and at a greatly reduced cost to us.

"We feel that we have steadily made gains in the quality of goods produced until in their various classes they are as good as any and better than most. We have eliminated many of the departments that have brought only losses to the company and built up other departments until they are on a profitable paying basis. We have cut out much that created heavy expense so

that the results of the present year should be much more gratifying than any season's heretofore.

"The company held a claim against the Rubber Goods Manufacturing Company for a large amount. This we believed to be equitable and just. This has been in litigation for some three years but now has been settled out of court in a manner satisfactory to this company. This claim has heretofore been carried in the assets of the company at the value of one dollar."

The Dealers Who Pinned their Faith to National Bicycles

in 1906

were the men who did business on

"THE SUNNY SIDE OF EASY STREET"

They had the bicycles with which to quickly answer the "Show me" demand—the bicycles that are not like the common run of bicycles—the bicycles that have individuality and talking points (which are merit points also) and which when sold stay sold and sell others.

**If Your Business Needs a Tonic, Why
Not Try the National Agency for 1907?**

NATIONAL CYCLE MANUFACTURING COMPANY
BAY CITY, MICH., U. S. A.

Our line of Bicycle Tire grades cannot fail to interest any live dealer or intelligent buyer on account of its completeness, its quality, and its prices.

Write our Branch House nearest located to you for quotations and any further particulars required.

"FISK EXPORT"

"FISK No. 66 E. H."

"FISK No. 88 H."

"FISK No. 66"

"FISK PREMIER CACTUS"

"FISK PREMIER"

"FISK NEW DEPARTURE"

"FISK MASSASOIT"

"FISK VICTOR"

"FISK PREMIER JUVENILE"

"FISK MOTOR CYCLE"

(The above words—to the wise—should be sufficient.)

THE FISK RUBBER CO., Chicopee Falls, Mass.

Boston
Buffalo
Denver

Springfield
Cleveland
Minneapolis

New York
Detroit
Seattle

Philadelphia
Kansas City
San Francisco

Atlanta
St. Louis
Los Angeles

Chicago
Montreal

THE BICYCLING WORLD and MOTORCYCLE REVIEW

FOUNDED 1877

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Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should
Address us at P. O. Box 649.

NEW YORK, DECEMBER 29, 1906.

"Enclosed please find express order for the renewal of my subscription for the *Bicycling World* for one year from Dec. 19th. Please don't let me miss a copy because I enjoy the paper very much, indeed. It is a much better publication than it was during the bicycle fever ten years ago and I congratulate you heartily on its appearance and its contents."—T. J. Denpre, Memphis, Tenn.

When Ambition Over-reaches Itself.

What a pretty exhibition of human nature is contained in the lengthy petition for reinstatement as an amateur that has been presented to the National Cycling Association by the young Californian who unsuccessfully competed in the six-day race of last year! Successful as an amateur his ambition carried him across the continent. He heard the plaudits of the frenzied populace and saw the glitter of the gleaming gold! He saw the toughened professionals striving with might and main to overtake him—saw his name in type seven inches high—and there were red fire and laurel wreaths and more coin awaiting him in his California home!

He came, he saw—not what he had seen

in fancy—and he conquered not. He was a mere straw on a great wave. He returned, not as a hero but as an exploded "phenom," without gold and without glory. The seasoned professionals were too much for him. He knows it now and knowing it, he would once more frisk with the lambs—would gambol on the green with those whose measure he is able to take. He would make a fresh start in old fields. How wise it would be if such young men looked before they leaped—if they counted the cost before they expended their effort.

To believe that they may try and fail and, having failed, that they may return to the green pastures—the pastures of easier picking—this may be youthful folly but it is not the rule of sport. There is but one line between the pro and the amateur—the line which makes for financial gain. Having once crossed it, there should be no return. Like the young Californian, those who would return are those who have failed to obtain the gain. If success instead of failure had been his portion, he would be content with his lot—the lot of a professional. Young men of the sort should be taught that amateurism is an honor and one not to be trifled with in such fashion.

Bicycles as Suburb Builders.

Although it may be overlooked readily enough, the influence of the bicycle in the making of the suburbs of all modern communities has been and is both potent and unmistakable. The tribute recently paid to the fact by a general magazine in reference to the marvellous growth in the residential districts of Long Island, is only remarkable because of its unusual character and pointedness. The radiation of the life of any community is an inevitable consequence of its growth, first, on account of the overcrowding of the central locations which are usurped by commercial and business interests, and second, by the desire of the people to get away from the noise and turmoil—at least while they sleep.

The result of the putting through of the intramural trolley lines is the rapid up-building of vast quantities of private and tenement dwellings. They are readily accessible, they are new and attractively arranged, and generally speaking they afford relief from the annoyances which come to the inhabitants of the thickly populated districts. But the railway builders go only where there is a demand, slight though it may be, coupled with a promise of more

business to follow. They are not pioneers in the strictest sense of the word, nor are the builders of the dwellings pioneers. Both strive to feed on a tendency which already has manifested itself, and for this tendency, the freedom of travel and the love of the good things which nature alone can give, the bicycle is largely responsible.

If the truth were but half told, the great hold on the hearts of its advocates which the bicycle maintains is largely due to the fact that through its use not simply great stretches of ground may be covered, but the rider is permitted to go out into the country and for a time enjoy the sensations of blessed freedom to which he is so much a stranger in the town. The places he revisits most frequently are those which afford the greatest amount of relief in this way, and when the time comes and he realizes that the need which heretofore has been satisfied with a few hours of relaxation, now requires a greater amount of time that in order to have the peace of mind he so craves he must not simply visit the country, but live in it all the time, he begins to look about him for a home. When he gets it his friends and neighbors follow, and so in a little time, the country is lost once more, and the same movement is continued—but always away from the great festering heart of the town.

It has been said that Americans as a nation, are growing more and more fond of out of doors, and of out of door sports. This is manifest not simply in the great and growing number of suburban homes, but in the interest in all forms of sport and play which lead the player out of doors. It is becoming a national characteristic, and its results are seen everywhere. In its tokens are to be discovered undeniably the tire-marks of the bicycle. It was not until the bicycle became popular that the quick and easy means of travel from point to point regardless of route or schedule and regardless of any will but the will of the traveler became possible. Since that time the love of out of doors has developed wonderfully, and has brought in its train a host of other pleasures and pastimes until then only half-developed.

It is perhaps too much to say that the bicycle alone is responsible for this general trait which is so well marked, yet it cannot be denied that it has played a very important part in its encouragement and in the development of the results which it has bred.

CHAIN WEAR AND ITS EFFECTS

What Takes Place When Chains Begin to Stretch—Warning Sounds That Indicate Coming Chain Trouble.

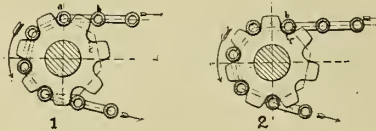
Although the effects of chain wear are appreciated readily enough by the rider, the alteration which makes an old chain of a new one comes about in so subtle a manner, that probably comparatively few riders are able to tell just how the change is brought about, and what factors contribute most to the evil which becomes so very pronounced toward the latter end of the life of the chain. When considered at leisure, however, the nature of the process which begins almost as soon as the chain is put in service, is seen to depend chiefly upon the stretch of the links, any possible disalignment of the two sprockets serving to accentuate the natural wear, but not to produce it to an extraordinary degree unless it is exaggerated considerably.

Considering the chain as it passes over the smaller of the two sprockets, as in Fig. 1, and supposing the link carrying the roller a, to be fully seated against the base of the sprocket, it is seen that the roller b, is approaching the base of the tooth at the point c, where it is destined to take up the ultimate position shown in Fig. 2. At the instant when this contact is set up, there must in the nature of things be a shock and a slight click dependant upon the diameter of the sprocket with relation to the pitch of the chain, as well as the load upon it and the rate of speed. In a new chain, the action goes no further than this, the rollers falling into their seats at the base of the teeth in a natural manner and without friction of a serious nature.

When the side pieces of the links become stretched, however, it is evident that the rollers instead of falling cleanly to the base of the teeth, must strike against the front faces somewhat above the root, depending on the amount of stretch which has taken place. The pull on the chain is sufficiently great to bring the rollers down to their proper places, however, and the result must at first be to drag them forward slightly, in an automatic effort to compress the side members and restore the original pitch. This being impossible, however, and the presence of the inevitable dust and dirt comingling with the lubricant forming the most effective abrasive imaginable, the final result is that the front sides of all the teeth are worn away, at first slightly, but finally to the extent of forming small pockets into which the rollers fall, and which tend to clasp and retain them after the line of tension has been passed.

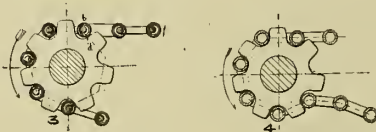
This effect, of course, produces an uncertain and irregular action of the chain,

owing to the unequal wear of the teeth, and in addition, produces a loud snapping sound, as the rollers jump over the little humps on the teeth and fall into the pockets which they have worn. Whenever the stretch has been unequal between the various links, the result will be that at times a short link will meet a worn tooth and fall into place quietly, while after the wear has been allowed to continue for some little time, it will come about that the short links will become very rare, while the long

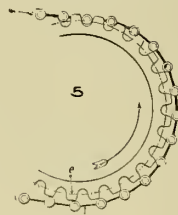


ones are common, and the general rattle of the action becomes practically continuous except when a very long link comes into contact with a tooth which is but little worn. In a long chain this may be brought about only once in several revolutions of the pedals, and in this way, an occasional snapping which is very hard to locate, is developed frequently.

The ultimate effect of chain stretch is, of



course, that the pitch becomes far too great for the sprocket and the tendency is for it to climb the teeth and break. This most commonly occurs on the larger of the two sprockets, where owing to the great number of teeth, relatively speaking, the wear is reduced to a minimum. The way in which the result is accomplished, is shown in Fig. 5. This must invariably break the chain, since the pull is sufficient to wedge out the links on top of the teeth



until they are almost ready to skip a tooth and go on as before. Before this happens, however, the metal usually gives way, and the rider who has neglected the warning clicks for a considerable length of time, is forced to throw the remains of the now useless chain across the saddle and prepare to walk home.

"The A B C of Electricity" will aid you in understanding many things about motors that may now seem hard of understanding. Price, 50 cents. The Bicycling World Co., 154 Nassau Street, New York City. ***

ALCOHOL WILL NOT BE CHEAP

Western Critic Charges That Law Was "Manipulated" to That End—Small Chance for Small Stills.

As further developments are unfolded, it begins to be something of a question as to whether the utility of the small still for the production of alcohol in accordance with the provisions of the new law is to be as much of a blessing to the farmer as at first was made to appear. In Germany every other rural citizen is pictured as owning a small plant and producing his own small offering of alcohol from his left-over crop of potatoes and other vegetables, which, denatured according to the government formula, nets him a neat return on what otherwise must be sheer waste.

Two things, the necessity of employing regular government inspectors, one for each plant, and the obligation to use a certain percentage of wood alcohol in the denaturant, would seem to portend a condition here, however, which would not simply prevent the farmer from running his own still except he be a large producer, but also combine to maintain so high a price for the final product as to quench effectually the overwhelming demand for it which has been so loudly foretold. Indeed, an article recently appearing in a western paper, takes an extreme view of the situation, and brands the whole thing by inference as a Congressional gold brick.

"The congressmen who voted for the so-called free alcohol bill did not intend that it should be converted by the manipulations of the internal revenue bureau into a gold brick for the farmer," says the article in question. "They thought they were bestowing a boon, the beneficence of which would be felt on every farmstead. But some flaws were left in the bill which have enabled the internal revenue office, which actively opposed its passage, to rob it of every cent of value as providing cheap material for power, light and fuel.

"The lowest cost at which it can be furnished, under these official manipulations, is said to be 35 cents per gallon. This makes it impossible of use in competition with gasoline, coal oil and other fuels and illuminants. The only beneficiaries of the bill are the manufacturers, who were previously handicapped in competition with their European rivals by the \$2.18 tax.

"The chief tools used by the internal revenue officials in cheating the farmers out of the benefits expected from the law have been the requirement of the use of a large percentage of wood alcohol as a denaturizer, the requirement of a separate inspector for every distilling plant, and the limitation of the privilege of manufacture to distilleries having a capacity of not less than 500 gallons of alcohol per day."

WALTHOUR'S MERRY CHRISTMAS

**Celebrates the Day by Soundly Trouncing
His "Invited Guest" in Presence of
His Admiring Townsmen.**

On Christmas afternoon Robert J. Walthour demonstrated to the enthusiastic satisfaction of his home folks at Atlanta, Ga., that all the nice things said about him by the New York daily newspapers in connection with the recent six-day race were well merited and that it was not because of his riding that he failed to come over the tape first.

To do so he took Paul Guignard, the world's one and two hour record holder of France, down to the Cracker State for the holidays and, to employ the vernacular, put it all over the Frenchman's shirt in a two heat match race at five miles each. Atlanta is a good sport town but a better Walthour burg and, of course, no one can ride like "our Bobby." Therefore it is not surprising that a large and uproarious crowd greeted the idol in spite of the frigid weather of last Tuesday, especially after a week of "bull spreading" by the inimitable Jack Prince, as to how the "snail eater" would put it all over Bobby."

Although Prince failed to warm up the barn-like Coliseum with mineral heat the spectators supplied this deficit with animal warmth when their pet, with the aid of Gus Lawson and his two-cylinder pacing machine, took several measures of Guignard, who was paced by John Chapman. Walthour had things all his own way in the first heat and he gained from the start, lapping Guignard twice and gaining half of another lap before the gun sounded five miles. Time, 7:38½.

Walthour fell shortly after two miles in the second heat and took quite a slide before he brought up. The fall was caused by a punctured tire and according to the rules the contest was called off until he could receive another wheel, restarting at the same relative positions they were in at the time of the misfortune. Walthour was slightly in the lead at the time and he increased it to one-half lap before the finish. Time, 7:45.

Harry Norton, conceded to be the fastest amateur in Georgia, was on the bills to ride a match race against Miller, another local sprinter of some reputation, but the latter failed to put in an appearance so Norton rode a two-mile exhibition. He followed pace like a veteran and reeled off two miles in 2:55.

Prospects' Midnight Prize List.

Realizing the grave danger and in response to the urging of the Federation of American Motorcyclists, the Prospect Wheelmen of New York, have abandoned

the event for motorcycles which had been included in their New Year's midnight race to City Island. For the bicycles, a fine lot of prizes has been obtained, chief of which is the Owen trophy. Three medals, three pairs of tires, a Corbin and a Standard coaster brake, a Solar lamp, a Persons saddle and a set of Poe's works, and half a dozen other articles are also on the list.

One of the Men of the Year.

One of the riders that has come prominently to the front of amateur ranks within the last year or two, and who will make a



LOUIS J. WEINTZ

strong bid for road and track honors next season, is the one here reproduced, Louis J. Weintz, of the New York Athletic Club, National Athletic Club, Twenty-second Regiment Athletic Association, Prospect Park Cork Pullers, Roy Wheelmen, and a few other organizations. Weintz is 21 years of age, weighs 150 pounds and stands 5 feet 10 inches in his stockings. He started riding in 1902, and the first race he won was a mile handicap in the Eighth Regiment armory, when he beat Cameron and Franks; this was in the spring of 1903. In 1904 he captured first time prize and the title in the 50-mile road race for the championship of America, promoted by the Century Road Club of America. Last winter he captured the interborough home trainer championship and the bicycle championship of the Military Athletic League, and a few weeks ago got the "Cork Pullers" championship of Brooklyn. In business life he is a mechanical draughtsman. As he neither smokes nor drinks and takes good care of his physical condition, Weintz will undoubtedly prove the coming amateur.

NEXT YEAR'S RACING PROSPECTS

**Vailsburg Still in Doubt and French Enter-
prise Likely to Rob America of Its
Crackjack Riders.**

The prospect for track racing in the East during the next season does not seem to be much improved since Floyd McFarland's interview with C. B. Bloemecke, manager and proprietor of the Vailsburg board track, last week. McFarland was seen at the Hotel Bartholdi yesterday and he said that Bloemecke and he had not as yet come to any terms, in regard to the management of the Vailsburg track next season, or would anything be settled until he (McFarland) returned from France.

As stated in last week's *Bicycling World*, McFarland wants to take hold of the historic New Jersey oval next season and import some foreign talent to give battle to Kramer and Lawson, America's best sprinters, and the only thing in the way appeared to be the matter of terms. McFarland wants to take the track unconditionally, that is, to lease it for several seasons at an agreeable figure and, of course, reap all the harvest. Bloemecke, on the other hand, would prefer to have the Californian take the track on a percentage basis, so that he would undoubtedly stand to win more should McFarland's managerial hand sow fruitful seed.

The result of the interview last week left matters practically where they were before and there does not seem to be any prospect of an understanding until either Bloemecke or McFarland weakens. McFarland is due to sail to-day on the Philadelphia for France, where he will ride for six weeks at the winter track in Paris. Paul Guignard and Robert Coquelle, the Parisian manager, will also return on the same boat.

While here Coquelle signed Menus Bedell and the former Long Islander will ride behind motors during the spring and the best part of the summer, leaving New York next Saturday, January 5th.

An interesting bit of news that Coquelle disclosed was that "Major" Taylor, the former negro crack, would get into the game again. The manager of the Velodrome Buffalo stated that he had seen Taylor, and that the negro is willing to leave his comfortable fireside at Worcester and go abroad to fill out the contract with Breyer and Coquelle that he broke two years ago and for which the National Cycling Association suspended him for one year. When Taylor jumped his contract because, it was popularly supposed, of fear of meeting Frank Kramer, he went into retirement in Worcester and has been almost forgotten. In view of this, the news that he is to get into the game again will come in the nature of a big surprise to everyone. Coquelle said that the deal would be concluded upon his arrival in Paris and after

a conference with his partner, Victor Breyer.

Although Lawson has let it be understood that he will not ride until next summer, it was this week learned that the former world's champion will go to Europe in March and remain on the other side all summer, competing in the championships to be run in Paris next July. Kramer has some ideas of going abroad, and if "Major" Taylor takes another try at the game, at the present writing, it would appear that the most important racing will be confined to the vicinity of Paris.

Just what will be doing out Utah way is not yet clear, either. Judging by what a Salt Lake man told the *Bicycling World* man this week the management of the Salt Palace saucer is also in doubt. The "Mormon" said that Chapman would be ousted and that Harry Heagren, the former manager and the best friend the riders ever had in Salt Lake, would arrange the program, fix the purses and incidentally stake the lesser lights to meal tickets. On top of this tale comes another saying that Nelson and Halverson, the owners of the track, would endeavor to get along without a manager, in which event, a flat failure is predicted. But McFarland says he has been tendered a proposition to go to Salt Lake, so everything is, figuratively speaking, up in the air.

MacLean Sends a Modest Cablegram.

"A story comes from America to the effect that, although the generally accepted championships of the world were those decided at Geneva last summer, MacLean, an American who raced in Paris during the season, claims the title in virtue of his success in a match with his compatriot, Butler," relates the *Scottish Cyclist*. "Lest the news would be overlooked, it seems that after the match MacLean cabled to New York that he had won the championship of the world, and a reporter who boarded the boat by which MacLean returned to his native land was handed a card with MacLean's name and the title 'champion of the world, 1906.' And thus, observes a French correspondent, is history made."

Americans Gather Foreign Gold.

Americans fared very well in the prize distribution at the meet at Marseilles, France, on December 15th, Nat Butler winning the two paced races and "Woody" Hedspeth the sprint race. Butler had everything his own way in the paced races, his only competitors being Quessard and Dubois, two second raters. The veteran American finished the first race, 10 kilometres, in 9:35, with Quessard second and Dubois third. The order of finish was not changed in the 20 kilometre event, which Butler won in 23:43½. Hedspeth won the sprint race in a close finish, Comes getting second, Oscar Schwab third and Murger fourth, and Schwab also finished in the money in the lap race.

KOMIYAMA IS A CHAMPION, TOO

And in Two Respects He Resembles Our Own Kramer—Queer Prizes Indicate Odd Professionalism in Japan.

Chozo Komiyama is, for the second successive year, national professional champion of Japan. He has two traits of Frank L. Kramer, America's foremost sprinter—

way up the hill leaning on his bicycle," comments the *New York Sun*. "The vision suggests something better than the tortuous native path as a bicycle highway, and as the scene is Uganda this is doubtless true, for good roads are spreading there in all directions and gangs of men are constantly at work keeping them in repair. Missionary Lloyd wrote a while ago that he easily made a bicycle journey from Mengo to the capital of the western prov-



one is winning championships successively and the other, riding a Pierce bicycle. Komiyama, who lives in Tokio, carried off practically all the honors at the championship meet held in Osaka in November and was returned the victor in a ten mile professional, the big event of the meet. The young champion has been riding for several years—he is now twenty-two years of age—with marked success and it is evident from the accompanying photograph of a few of the prizes that he has won that professionalism in Japan has not yet reached the American basins. As will be noted, Komiyama's prizes include a dollbaby, pajamas, hat, vase, calendar and innumerable mantle clocks.

The Bicycle in Uganda.

"Pictures from central Africa nowadays show the most unexpected things. A photograph just at hand seems merely to tell the old story of grass huts and lightly attired natives, till you spy a black man half

inced at the rate of sixty miles a day.

"What a magnificent business opportunity this picture would suggest to Colonel Sellers. Good roads are multiplying. The whites simply decline to trudge through the tall grass when they can hire thousands of men for a yard of calico a day to make good, wide roads. There are 200,000,000 people in Africa, and they need bicycles. Let the dismantled factories be restored to their ancient efficiency. It is time for them to get busy supplying the demand."

That irrepressible desire to "swap" something superfluous for something else, which dominates the "want" columns of the dailies has crept into the technical press abroad. Among other things offered in exchange for a motorcycle in the traffic and barter column of an exchange, recently were these: An old oak grandfather clock, a rubber-tired trap and set of plated harness, 2½ inch centre lathe, and an 8kt. gold hunting lever watch.

TO SAN FRANCISCO BY EASY STAGES

PART II—CHICAGO TO OMAHA

This is the second of Stanley Bowmar's article describing his motorcycle trip to the Pacific Coast. The first, being the account of his journey from Buffalo to Chicago, appeared in the December 1st issue of the Bicycling World.

Of Chicago I am sure it is not necessary to say anything. It is well known—well known as the city of all others where everyone seems to be hunting for the dollar, and the dollar only. They are too busily engaged in the absorbing pursuit to stop for a moment to post the names of the streets on many of the corners, even of the principle thoroughfares. The stranger has to grope his way about blindly—grope his way, too, minus a guide, for there is not a decent guide of the city published, only a few street directories. It is the dollar they are after, so what is the use of paving the business streets so that they can be kept clean. The dirty cobble stones are good enough—to give a motorcyclist the nightmare. When one remarks about the dirty state of the streets he is referred to the parks. Chicagoans seem to forget that a diseased thing can be beautiful "in spots." There is a cleanliness and inspiration about New York City that Chicago does not know. They call it the "Windy City" and the "Prairie City," both fine names which turn one's thoughts to the fresh breezes of the open plains, but it seems to me that more gales would be welcome. For the sake of one's organ of smell, however, he would require to live on the windward side of the city.

After a busy week in Chicago, rushing round the business parts and through the packing houses, with motor boat excursions on the quiet Calumet, and motorcycle rides in the parks as an antidote, I was glad to get started again westward.

Leaving the Whipple Cycle Co.'s store on Jackson Boulevard where I had received innumerable kindnesses, Saturday afternoon, June 23, I ran into Geneva that evening. The roads were in a wretched state. It had rained steadily most of the day previous, and with the heavy traffic the dirt roads were cut up frightfully.

After cleaning up the motor in the evening, I strolled down to the Fox river, at Geneva, one of the most beautiful streams one could wish to see. The many little islands with which it is studded and the overhanging trees showed with beautiful effect in the clear moonlight.

The rain which threatened Sunday morning cleared off, and I had further good fortune in meeting another motorcyclist, Mr. A. Petersen, of Elburn, who came along twenty miles. During the afternoon the batteries began to give trouble, and in the evening, a few miles from Ashton, gave out completely. I decided to try the water-

ing dodge. It worked like a charm. I drove a screw driver about three inches in the top of each battery and poured a small jug of water down the holes with the most gratifying, and, I must admit, unexpected, results. I fairly flew into Ashton.

The telephone office was the only place where batteries could be got the next morning. In small towns I found this was very often the case, and it is a fact worthy of the cross-country motorcyclist's attention that wherever there is a telephone exchange he can rely on securing batteries. As far west as Denver, I did not carry an extra set of these most exasperating articles, which were the direct cause of a good deal of bad language. It was necessary for me to put on the thirty-mile-an-hour gait to reach Dixon before the rain, which had threatened the previous morning, came down in torrents. It was patent it was no shower, so I determined to try the tire-saving proposition, which had been recommended by a Chicago rider; namely, the putting of a canvas cover over the back tire. I bought enough of the heaviest ducking I could to put four thicknesses round the tire. These four strips I riveted together, and had eyelets put in the edges at the book factory, and then laced the covering tight round the tire, the good-natured chief of the fire department kindly lending a hand.

The storm cleared off in the evening, and I had an opportunity to look around the town, which is the center of a prosperous dairying district. In summer, however, this district, like many others in Illinois and Iowa, is subject to severe thunder storms. One farmer whom I met that evening told me that this year's work had been ruined a few days before by a terrific hail storm, which beat down his corn and generally played havoc. A peculiar feature of the storm was that at the other side of the road it was rain that fell, not hail, and little or no damage resulted.

It is amusing to hear the remarks of some people when you tell them you are making the trans-continental trip. Most of them agree that it is a harum scarum undertaking, fit only for a fool; but everyone of them is unanimous on this point—that there is all sorts of money in it. It is useless to try to make them believe that there are no selfish reasons behind it, and some of them express their contempt for whatever is not tangible and money-making in no uncertain tones.

"To San Francisco on that damned thing,

and no money in it!" exclaimed a man the next morning as I started out on the slushy roads to Sterling. "I'd like to see the day that I'd be such a gol-darned fool," and he walked away in disgust without giving me an opportunity to add, as I intended to do, that all I got out of the trip was innumerable headers and any amount of fun.

The road to Sterling, though hard metal foundation, was so wet and slimy on the surface that I decided to wait there an hour or two to give the pools of water a chance to disappear. West of Sterling, things were infinitely worse. A mile out of town the metal came to an abrupt termination, and on the dirt road my patent tire picked up enough mud to block the wheel. I swore vengeance on the fellow who recommended it, and trundled along in the grass by the road side. If the road was almost impassible, however, the country was beautiful. After the rain, the fields of corn and the pasture lands looked at their best, which is something to say of this section of Illinois, one of the most productive parts of the Prairie State. During lunch, I happened to pick up an old copy of the Delin-eator and noticed that old verse of poetry:

The springtime of the year is coming,
coming,
The birds are singing blithe and gay;
The insects bright, are humming,
humming,
And all the world is gay, love—
All the world is gay.

In the afternoon the roads to Clinton continued to be far from good, and I had to walk most of the way, but there was ample compensation—the whole countryside seemed to breathe the spirit of that verse of poetry.

For several hundred miles back the term "over the river" was a common one. At first I did not realize its significance. I soon learned, however, that those living east of it refer to the Mississippi as "The River." It is looked upon as one of the great dividing lines, and well it might be. To realize how appropriate is the Indian significance of the name (Father of Waters) one has only to see the mighty volume of water that flows under the Clinton bridge, and here it is not yet joined by the Missouri nor the Platte, which each drains an immense expanse of country. The Platte itself is 2,130 miles long.

Clinton, where I stopped that night, July 3rd, was en fete. To-morrow was the Fourth of July, and all the small boys

seemed to be aware of the fact. When I arrived, just about dusk, the streets were crowded and fire works all the rage. All the youth (I didn't see much "beauty" in them) of the place crowded round and bombarded me with the usual set of questions: "Why don't y' ride, feller?" "Get on there, feller," "Why do y' push a thing like that? I want to see the jigger go." Then, seeing that Clinton was my stopping place that evening, they changed their tactics and wanted to know where I had come from and where I was going. "How much gasoline does she burn?" "Does she run away with you?" "How fast can you go?" "Beat a freight train?" "I say, feller, what 'ud you do if she blew up?" By this time I had rubbed the thick of the mud off, and, as I pushed the machine into the hotel, one little chap was heard to whisper, "I say, I bet 'e's a big gun."

All night the fireworks were kept up, and, tired as I was, it must have been well after midnight before I found the way to Slumberland. It was the same in the morning. An explosion loud enough to shake the nerves of a fellow who does not live in Russia woke me. The reader will probably understand that a cross-country cyclist is not troubled with insomnia.

It took no weather quack to see that the "glorious Fourth of July" was going to be a day of thunder storms. By nine o'clock it was hot enough to roast a rattlesnake, and heavy threatening clouds hung in the west. Thunder storms are usually local, and I hoped that I would run out of the zone of this one. For this reason I made all possible speed, took a hasty lunch at Dewitt and pushed on, despite the warnings. What with rough roads, hills and irritating delays, caused by frisky horses in the farmers' buggies, progress was, however, tantalizingly slow.

A few miles west of Dewitt the storm seemed to close on me. Lightning played on the handle bars, and flirted with the bright spokes. I have never seen such fireworks. I gripped the handle bars and tore along, hoping to make Green Mound, three miles west, before the storm broke. But the huge black clouds that seemed to have broken loose from the heavens and to be rolling along the earth, came nearer and nearer, the lightning playing on them, some flashes shooting perpendicularly, others running round the sky. In a few moments big drops began to fall, and I steered for an open farmyard gate, but before I could reach the stable door, which was bolted securely, I was soaked to the skin. The rain, forced by a rush of wind, whirled around the corner of the stable, lifted everything movable and swept along like a wall of water.

When the storm was over, I sallied out, a miserable looking object, but determined to at least make Grand Mound. The roads—I've no need to describe them. I trund-

led along in the wet grass, the only place where the wheels would not block.

Three miles further on the roads were dry. The storm had missed Grand Mound, and, as this little village was in a whirl of celebrations, I decided to push on, wet as I was, to Calumet. Before I reached there, however, just to make certain there was not a dry stitch on me, another thunder shower came along and obligingly tipped another bucketful of water down my back. This time I did not bother to seek shelter. Keep going and keep warm, which isn't a difficult matter when hauling a motorcycle through six inches of Iowa road-glue, seemed to be the wisest policy. Most of the farm houses were deserted, the folk having gone to celebrate in the nearest town.

It would be hard to imagine anything more discouraging than the state of the roads when I passed through Iowa and Illinois. In these two States, the cyclist seems to be completely at the mercy of the weather clerk, who is all over the world, a most unreliable fellow.

Calumet to Cedar Rapids was the next day's run. Cedar Rapids, according to my cyclometer, 250 miles west of Chicago, is a well-kept, go-ahead city; and it has the advantage, too, from a picturesque point of view, of being situated on the Cedar river.

What is more important, still, is the fact that it boasts a motorcyclist. Mr. Hall, the gentleman who rides this "go-like-hell-machine," as one of the local small boys called it, came along with me for a few miles the next morning, until the roads began to resemble a choppy sea. I was sorry to lose such good company. It was a hard day's work to make Blairstown, only thirty miles.

It is hard to say whether it is too much prosperity that has made the Blairstown hotelkeeper independent, at any rate, he possesses that "glorious privilege" in a marked degree. I reached there well before dark, but was bluntly told that it was "Too late for supper," and referred to the restaurant, away down the street. Not that I was afraid of getting lost in Blairstown—it is not such a mighty metropolis as all that—but, to tell the truth, I did not feel like trudging another step.

Sunday's ride was an interesting one, through swelling, undulating country—much splendid pasture land, and beautiful fields of corn. Though there were many hills to climb, the motor, which seemed to be just as pleased as I to find the roads somewhat drier, hauled me up everything, and, despite a late start I made Roger, 80 odd miles. Between Marshalltown and Melburn I took the wrong turn—instead of following the beaten road, I stuck to the telephone lines, which I had been told ran right into Des Moines. These led me onto an unused road, where there was not even a trail. Had it not been for this mistake, which meant a four-mile walk, I could have

reached Des Moines that evening, instead of the next morning.

This mistake, too, caused me to be half an hour in the dark, and this, in its turn, was responsible for my being within an ace of having a serious collision with a gentleman and lady in a buggy. They had no light, and mine had long been put out of commission by headers. They were on my side of the road. I gave the horn a toot, which, if it did not warn the driver, certainly frightened the young lady and the horse. The motor made a vain endeavor to climb the left-hand fence, which prevented an accident, and fortunately nothing was bent or broken. If anything serious had resulted, I would have accused the gentleman in the rig of paying more attention to his companion than to the horse—which is just about what it amounted to.

A few miles from Roger I had another collision, not with a fence this time, but one of those improved (and I sincerely hope, patented,) Yankee bridges which stick up five or six inches above the level of the road. All day the motor had a tendency to refuse to run at low speed. It was full bat or nothing, and 40 miles an hour in the dark made riding something of a hair-raiser. I did not ride over that bridge, both the machine and I hurdled it and landed in a heap on the other side. Until one starts across country on a motorcycle, over roads and no roads, he never knows how much of an acrobat he is. Some evenings during the tour, when thinking over the day's experiences, my vanity was quite flattered and I thought of joining a circus.

I spent the next afternoon looking around Des Moines, the principal business center and the capitol of Iowa, and in the evening, at the Reo garage, set to work to overhaul the motor, but was not very successful, for the engine still refused to run at low speed. An innocent abroad with a motorcycle, it was not always easy for me to locate small troubles that an experienced rider would have found in an instant.

Tuesday evening found me no farther than Stuart. Monday had been spent in overhauling, and during Tuesday afternoon my old friends, the thunder showers, kindly came along to see how I was progressing. They stalled me in the little town just mentioned.

From the window of the hotel I watched the rain beating down in torrents on the deserted street. By one's home fireside, comfortably seated in an easy chair with a favorite volume, rain has a soothing effect. "Here it has the way of being a protecting creature"; but "away from home, it is the most homeless thing in the world." This day it certainly had a depressing effect on a wandering cyclist. In the morning everything had indicated a fine day, but here was a torrent of rain, beating down as though it would never cease.

As far as Menlo, Wednesday, I took the Rock Island railroad track, and then to

Adair. The ties were so poorly ballasted, however, that little riding could be done. Made Anita that evening, and, though I am shocked to have to do so, I must report that, swinging round a corner, near that town, I was within an ace of running down the hearse of a funeral which for some reason, probably the heat, was being held very late in the day.

Even now, months after, it makes me thirsty, to think of a lunch I had the next day at a farmer's between Anita and Oakland. It was a roasting hot day, the thermometer hovered round 90 degrees, and, as I was told that going the most direct way, which I was determined to do, I would strike no town before Oakland for lunch, I determined to try my luck at a farmer's house. Yes, the good lady of the house would get me some lunch, "if I could do with what she had." Of course, in my innocence, I said anything would do immensely. I was as thirsty as a fish, and in short order drank four cups of coffee, which was A-1, but the horrors of that salt pork! I was too hungry to be dainty, and while it did taste as though the best part of the salt bag had gone astray in the water in which it had been boiled, I ate a good deal of it. I won't say how many pumps I raided that afternoon—it would look, like a linotype mishap, or an Irishman's wild exaggeration.

While on one of these water-hunting expeditions I got into conversation with a farmer from Edinburgh, Scotland, and it was interesting to hear him speak lovingly of the Old Land. To pay a visit to his old home was his guiding ambition. He had emigrated to America when sixteen, and

now, twenty years later, is a prosperous farmer, having a comparatively easy life. When his children become a little older, it is his intention, he told me, to take his wife and family to see the Old Castled City. He was delighted to hear that I had been there last year. His eyes sparkled with delight at the mention of excursions up Arthur's Seat, Salisbury Craggs, The Castle and the Forth Bridge, and Saturday night rambles through the Cowgate. To hear him speak so enthusiastically of his native city, one of the most beautiful in the world, reminded me of what Robert Louis Stevenson wrote, "There are no stars so lovely as the Edinburgh street lamps."

I delayed so long with our Edinburgh friend (may his good fortune continue) that it was growing dark when I reached Oakland. Riding at night on a strange road is a poor policy, and I decided to leave the remaining twenty-eight miles to Council Bluffs for the morrow.

Taking the route I did, Iowa is very hilly, and the last twenty miles to Council Bluffs, is the worst in this respect. There was, however, a beautiful down grade for the last few miles, and I spun merrily along the winding, shady road.

Although I make no pretensions to speed, if my informant was truthful, the recording angel who has charge of the sporting department should certainly give me credit for making a fast run for the last eight miles into Council Bluffs. I stopped to ask a man how far it was into the city.

"Eight miles," and when I made a doubtful remark, he added emphatically, "I've been here ten years, so I ought to know." It was exactly twelve minutes to four. I

pulled back the speed lever, and opened the throttle. When less than a mile from the postoffice, the batteries gave out, and my watch said seven minutes to four. Seven miles in five minutes.

Was it, I wonder, another instance of those fearful departures from the truth that the man on the other side of the fence makes to a credulous cyclist? I have my suspicions. This reminds me of another instance where I rode—and fairly fast at that—for two hours, but, according to two farmers, I was getting further and further from the city I was anxious to make, and to which I was traveling in an almost direct line.

Past another of the great dividing lines—the Missouri river. Were it not for this river, which rolls between, and here forms the boundary between Nebraska and Iowa, the suburbs of Council Bluffs and Omaha would connect. Here two huge bridges span the river—the great double track steel bridge of the Union Pacific railroad, and the ordinary traffic bridge, over which it was pretty rough riding. I was riding merrily over this bridge, not paying much attention to the track but looking up the river, when I heard a shout. It was the toll collector, the first I had come across since I paid the toll to cross the bridge at Waterford, in the South of Ireland.

Council Bluffs is a great railroad center, the union point of ten trunk lines, but as a business city it is outstripped by its Nebraskan rival. Omaha is the great metropolis of the middle west. From a mudhole and the outpost of the trappers in 1854, it has grown until it is now a metropolis of 135,000 souls. STANLEY BOWMAR.

One Way to Clean Carbide.

A good way to clean carbide which has been partially slaked through exposure to the air is to shake it in an old can having a perforated bottom. A discarded carbide or baking powder can answers the purpose very well, and should have a large number of small holes punched in its bottom. The carbide is placed in it, the cover firmly pushed into place and the can shaken violently for several seconds when the loose dust which is formed in the slaking process will become detached from the lumps and fall out through the perforations.

Sifting the Hotel Keepers.

A curious competition has been inaugurated by the Touring Club de France in an effort to discover the best hotel keeper. The most "affable, expert and suitable hotel proprietor," is the title which the winner will be given, while his reward will be a \$500 prize and a gold medal, while the second and succeeding "bests" will have medals. A committee composed of the secretaries of the club and a representation of the Hotel Industry Syndicate, will examine the candidates.

Talk That Makes Him Tired.

"Is it a great feat to ride one hundred miles on a motor bicycle?" ejaculated the old-time cyclist the other day, and at the same time answering his question. "Huh!" he grunted, "it really makes me tired to hear some of these motorcyclists telling about riding a little century on a self-propelled machine as if it were the most wonderful thing they had ever done. Only the other day I picked up a paper, and to my surprise actually found nearly three pages—three pages, mind you—given up to the description of a century run in which 15 or 20 motorcyclists took part. Why, we fellows used to do a 'hundred' almost every Sunday in the year, and think nothing of it.

"Why, I have heard motorcyclists boasting of climbing little warts of hills as though it was a marvellous performance—hills that we pedalled up on awkward 50-pound solid tired machines and never thought of mentioning it. To hear some of those chaps prattling about infantile feats is enough to make one feel like telling them to take their machines and ride to Hades or some other place just as warm."

One Lamp Could Not Serve for Two.

In England recently a cyclist was summoned for riding without a light. His defense was distinctly original, in that he claimed as he and a friend were both riding their bicycles with their arms joined, the friend carrying a stable lantern, the two bicycles so joined constituted a four-wheeled vehicle, and hence the lighting by a single lamp was in order. The bench however, was not of the same opinion as the ingenious cyclist, and inflicted 1s. fine with 4s. 6d. costs, while the police superintendent held that both cyclists were liable, as the lamp was being carried and was not fixed on the machine.

Repair Stand in the Kitchen.

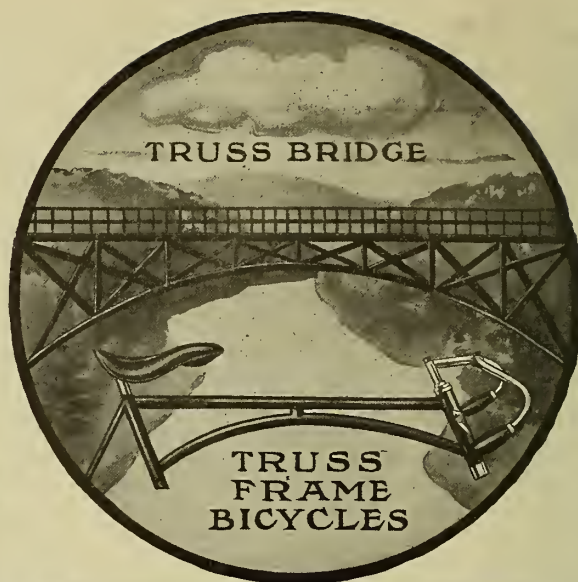
Those who are compelled to do their own repairing at home and without regular fixtures for the purpose, should remember that nothing makes quite so good a repair stand as a common kitchen chair turned upside down with the edge of the seat and the back resting against the floor. The handle bars may be rested against the two upturned legs, while the saddle bears against the back near the floor.

The Great Six-day Race at Madison
Square Garden is Over.

JOE FOGLER and EDDIE ROOT
won the same on

IVER JOHNSON

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TOLEDO, OHIO

ROAD RACERS ON THE ROLLERS

"Cork Pullers" Ungraciously Best Their Hosts, and "Six-Day" Fogler Speeds the Roller to Splinters.

Any one who doesn't believe that a home trainer roller can be ridden so fast that the centrifugal force overcomes the strength of the pulley, causing it to fly to pieces has but to go to the National Athletic Club in Brooklyn and view the remains of the roller that Joe Fogler, a member of that organization, who recently won the six day bicycle race, rode in his match race with Walter Bardgett, of Buffalo, Thursday night, 27th inst.

The race between Bardgett and Fogler was the last of three home trainer match races that formed, with the possible exception of one-half of a rough and tumble basketball game, the most exciting part of the program given by the sports committee of the wideawake Brooklyn organization. The race was at three miles, or six laps on the indicator, and the rollers used were those upon which the championship races were decided. It was the closest race of the evening, the only one that brought the several hundred spectators to their feet cheering for their favorite—the long-legged and white-haired six-day winner, naturally.

The men got away from a rolling start, Fogler having the white indicator and Bardgett the red. Neither rider gained an inch for the first half-mile and the hands on the dial were still running neck and neck race at one mile. In the next lap Fogler gained two inches on the scale, which the Buffalonian reduced to one inch at the end of two miles. At two and one-half miles Bardgett led by a small margin, but when the whistle denoted the last lap is where the real race began. Fogler pumped on his pedals like a pile-driver and Bardgett tried to do the same, still leading at the last quarter. At the last eighth Fogler rode like he was trying to gain a lap in a six-day race and his indicator was going by Bardgett's like a shot when suddenly the front roller with Fogler on flew into a hundred pieces, one section flying up into the gallery and cutting one of the spectators, the other parts being scattered all over the hall. Due to the presence of mind of his holder, Fogler did not fall and the momentum of the rollers was sufficient to give him the victory by three inches. The time was 5:50. The announcer was a very nice young man with a joking turn of mind, for he announced Bardgett as the "world's one mile champion," which caused one or two in the hall to smile.

Another close race was that between Frank Fischer, of the Cork Pullers Club, who divides his time between riding a bicycle and writing comic songs, and dapper little Owen Devine, National A. C., the

runner-up to "Sir" Walter Raleigh in the contest of manners. Devine led by 1½ inches at the half which caused several of his feminine patters-on-the-back to go into hysterics but the song writer-cyclist, by a well-timed sprint, nipped him at the tape, so to speak, winning out by a half-inch, so close that many declared it a dead heat. The time for one mile was 1:20.

The two mile race between "Hard Luck" Wilcox—he with the elongated countenance and doleful smile—and "Sir" Walter Raleigh, expounder of Chesterfield, was not as exciting as it might have been because the indicator hand of Wilcox's roller refused to move in the last lap, and it was really amusing to see Wilcox sprint for a



NEW YORK BRANCH: 214-216 WEST 47TH ST.

half-mile, although the referee told him to quit, when the hand would not budge. Wilcox led for the first lap, but the winner of the Irvington-Millburn was in front by two inches at the mile, increasing his lead, of course, from there on to the finish. The time was 4:00. Summaries:

Three mile match between Joe Fogler, Brooklyn, and Walter Bardgett, Buffalo—Won by Fogler. Time, 5:50.

One mile match between Franklyn Fischer, Cork Pullers Club, and Owen J. Devine, National A. C.—Won by Fischer. Time, 1:20.

Two mile match between Walter Raleigh, National A. C., and Arthur Wilcox, Cork Pullers Club—Won by Raleigh. Time, 4:00.

Henri Mayer, the famous German sprinter, has gone in for pace following like many other sprinters have done when they found the handicap of increasing age enveloping them. He made his debut in Paris against Nat Butler and Quessard, also new at following motors, in two heats at 20 and 30 kilometres. Of course, Butler rode home first in both cases.

INDOOR SPORT IN SAN FRANCISCO

First Home Trainer Race Since the Quake Results in Decisive Victory for New Century Wheelmen.

Witnessed by nearly 1,000 spectators, the New Century Wheelmen's team, composed of George McGrath and Christopher Scheller, won the first inter-club home trainer race meet held since the earthquake in San Francisco, on December 10th. The Bay City team—Fred McLaughlin and Artie Dagget—finished a close second. These two organizations tied for first honors after the heats had been run off so it was decided to let the fastest man for each team ride the tie, going two miles, Dagget being up for the Bay City team and McGrath for the New Centuries. Dagget covered the two miles in 2:33½, two-fifths of a second slower than in his heat against Peigue of the Central City Wheelmen, and few expected to see McGrath, acknowledged to be the champion roller rider of the coast, beat this time. McGrath surprised the crowd, however, by reeling off two miles in 2:30½, the fastest time of the evening, winning the individual time prize. Summary:

First heat, between Central City Wheelmen and Oakland Wheelmen—Won by Tungate, C. C. W., 2:45½; second, Basset, O. W., 2:55.

Second heat, between Oakland Wheelmen and New Century Wheelmen—Won by McTigne, O. W., 2:35½; second, Scheller, N. C. W., 2:47½.

Third heat, between Bay City Wheelmen and Central City Wheelmen—Won by Dagget, B. C. W., 2:33; second, Peigue, C. C. W., 2:56½.

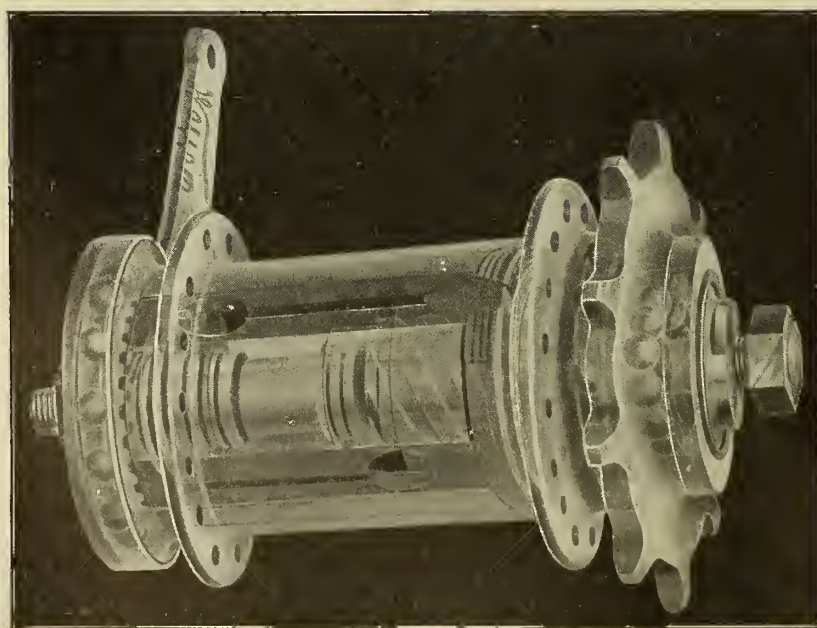
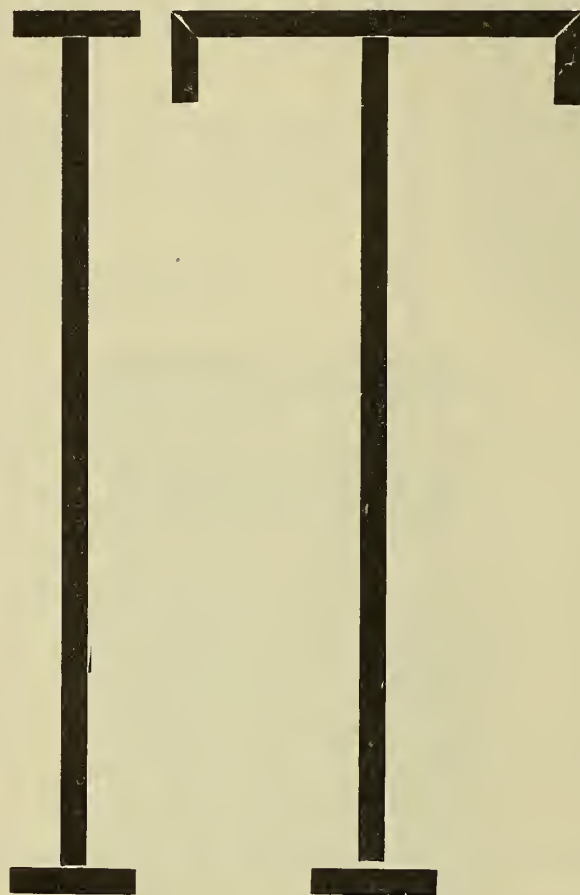
Fourth heat, between New Century Wheelmen and Bay City Wheelmen—Won by McGrath, N. C. W., 2:34; second, McLaughlin, B. C. W., 2:48½.

Total time—New Century Wheelmen, 5:18; Bay City Wheelmen, 5:21½; Oakland Wheelmen, 5:30½; Central City Wheelmen, 5:41½.

Chicago Six-Day Race is Off.

P. T. Powers has felt slightly indisposed since the six-day bicycle race, partly because of what the journalistic "hammer throwers" did to him and partly on account of his chronic rheumatism. At any rate he has absented himself from his office at 220 Broadway, so that it is impossible to ascertain of him personally whether or not he intends holding the proposed six-day grind and week of sprint racing in Chicago during February. The only person at Powers's office yesterday was his stenographer, and she said that "on account of adverse newspaper criticism, Mr. Powers does not feel justified in taking hold of the Chicago proposition." Judging from which, it will be safe to say that the Windy City races are "all off."

THE MORROW STILL IS



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**"Uncle Sam" Hands Down Some Rulings
on the Subject—Druggists are Placed
Under the Ban.**

In a series of communications Internal Revenue Commissioner Yerkes has defined certain conditions relating to the traffic in denatured alcohol which have a not unimportant bearing on the trade in its relation to the motor bicyclist, particularly in regard to the possibility of obtaining alcohol from places other than those regularly constituted as supply stations. The provision of the new law prohibiting the storage or sale of the denatured product on premises where alcoholic beverages are kept, renders the sale of it as fuel for any other purpose by druggists or other dealers of any status who also handle liquors, out of the question. In his manifesto the commissioner has made this plain. The first of the communications and the one bearing most heavily upon the point in question is directed in reply to an inquiry as to the status of manufacturing druggists under the law.

Briefly it states that druggists engaged in the business of rectifying distilled spirits, liquors, etc., are to be regarded under the regulations relating to denatured alcohol as rectifiers and not as druggists entitled to exemption provided in section 59 of said regulations.

The commissioner argues that if such were not the case any rectifier or dealer in distilled spirits, wines or liquors might easily evade the regulations prohibiting the storage of denatured alcohol on the premises by simply combining with that business the sale of drugs. He states that it is obviously necessary for the protection of the revenue to exclude from the premises of rectifiers and dealers in beverages denatured alcohol upon which tax has not been paid and in exempting druggists from the provisions of section 59 it is found necessary to draw the line between those engaged in the regular business of druggists and those who in connection with the drug business rectify and sell beverage spirits.

In another communication bearing upon the same subject, he says: "The act relating to denatured alcohol contains a specific provision against the use of such alcohol for beverage or liquid medicinal purposes, and it would be manifestly unsafe and contrary to the purpose of the act to permit such alcohol to be stored on premises where beverages are sold or where such medicinal preparations are manufactured. While this privilege might be safely granted in many instances, this office, in administering revenue laws, is clearly not warranted in granting special privileges in individual cases."

In replying to an inquiry as to whether

a department store having a liquor department on the fifth floor of its building and a drug department on the main floor, may be permitted to handle alcohol in sealed packages of less than four gallons, the commissioner gives a decided negative ruling. He says:

"You will note that druggists are exempt from provisions of said section. This office holds, however, that druggists that deal in distilled spirits, wines, or malt liquors and beverages do not come within the exempting clause, that they are in the same class as ordinary liquor dealers and cannot store denatured alcohol for sale or for any other purpose on the same premises on which they store their stock of distilled spirits, wines or malt liquore. The object of section 59 is to prevent denatured alcohol and beverage liquors from being stored on the same premises. It is understood from your letter that all five or more stories of your store constitute the same premises, that there are means of interior communication, such as elevators, etc., from one story to the other, that in going from one story or part of your store to the other, you remain in your own premises. Your liquor department on your fifth floor and your drug department (in which you propose to keep stored and sell denatured alcohol), on your first floor, are, therefore, part of the same premises.

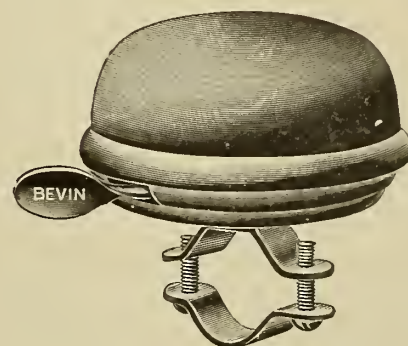
"Under these circumstances permit to deal in denatured alcohol and keep the same stored in the drug department or in any other department similarly located with reference to your liquor department, cannot be issued. If you have premises, such as a warehouse, separate from your main store, and not constituting a part of the same premises, and there are no means of interior communication between such premises and your main store then permit may be issued, authorizing you to keep denatured alcohol stored on such premises and delivered to your customers therefrom."

A third communication defines the work of the inspectors and states that they will be designated as internal revenue inspectors and will be appointed by the Commissioner of Internal Revenue with the approval of the Secretary of the Treasury. They will prepare and submit to their proper superiors tri-monthly diary reports showing the work of each day, and their duties will be principally to look after the work of administering the denatured alcohol law. In emergencies, however, they may be assigned to any other class of field internal revenue work, in the discretion of the commission. They will be allowed transportation and full expenses while actively engaged in the work and in addition will receive a salary, the amount of which is not stated by the commissioner.

"Each number of the Bicycling World is eagerly awaited and is read from cover to cover."—J. J. O'Connor, Hartford, Conn.

THE "Good Old Standbys"

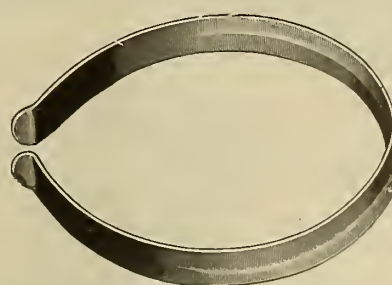
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No Change in Mileage Leaders.

Practically no change has taken place in the standing of the leaders in the mileage and century competition of the Century Road Club of America during the month of November, as the report of Noble O. Tarbell, chairman of the roads records committee discloses. Herman H. Hintze, still leads in both the number of centuries and mileage ridden with National Treasurer Harry Early, of Bayonne, N. J., the runner up in both instances. Andrew Clausen is third in the century list and Henry H. Wheeler occupies the same position in the mileage table. Most of the changes have been in the lower positions, several of the low scorers having exchanged places. The standing for the eleven months, ending November 30th, is as follows:

Centuries—1, H. H. Hintze, New York City; 2, Harry Early, Bayonne, N. J.; 3, Andrew Clausen, Chicago, Ill.; 4, A. H. Seeley, New York City; 5, F. I. Perreault, Malden, Mass.; 6, F. E. Mommer, New York City; 7, H. H. Wheeler, Pomona, Cal.; 8, Emil Leuly, West Hoboken, N. J.; 9, E. G. Grupe, Brooklyn, N. Y.; 10, F. S. Floyd, Winthrop, Mass.; 11, W. E. Thompson, Brooklyn, N. Y.; 12, F. H. Peterson, Newark, N. J.; 13, H. E. Fischer, West Hoboken, N. J.; 14, Fred Pfarr, New York City.

Mileage—1, H. H. Hintze, New York City; 2, Harry Early, Bayonne, N. J.; 3, H. H. Wheeler, Pomona, Cal.; 4, F. I. Per-

reault, Malden, Mass.; 5, A. H. Seeley, New York City; 6, J. H. Clowes, Paterson, N. J.; 8, E. G. Grupe, Brooklyn, N. Y.; 9, N. O. Tarbell, Lake Geneva, Wis.; 10, H. E. Grupe, Brooklyn, N. Y.; 11, Fred Pfarr, New York City; 12, Emil Leuly, West Hoboken, N. J.; 13, C. E. Nylander, New York City; 14, Wm. J. Hampshire, Los Angeles, Cal. Since the first of the year 602 centuries have been ridden and the total mileage reaches 66,202.

Brooklyn Turners Elect Officials.

These officers have been elected by the Eastern District Turner Cycle Club, of Brooklyn: President, Carl Wetzel; vice-president, Albert Fink; secretary, Herman Elsasser; treasurer, George Braun; representative, Carl Eckert; captain, John H. Miller; first lieutenant, George Eckert; second lieutenant, Edward Mesle; color bearer, Kurt Wetzel; bugler, George Kovarik; surgeon, William H. Weygandt. The Turners will hold their annual banquet at the club rooms, Bushwick and Gates avenue, Brooklyn, Thursday evening, February 21st.

Two new Columbia bicycles have been added to the equipment of the bicycle squad of the Richmond (Va.) police force. They are to be used by the extra men that have been added for the purpose of discouraging automobile scorching; speedometers will be placed on the machines before they are turned over to the men.

Police Stop the "Dare Devil's" Dive.

The Paris police recently put a stop to "Dare Devil" Schreyer's dive at the Buffalo Track, Paris, threatening him with arrest if he continued the performance. He has not by any means finished with his sensational feat, however, as he possesses a contract for 1907 to appear in Germany, and he is also booked for Pontypool. In the meantime he has invented another thriller for music halls and hippodromes, and will soon make his appearance at Liverpool. The new act consists of a ride on rollers fitted close to the roof, the machine not being fastened in any way. At a given signal Schreyer and his bicycle make for the tank below. Moving pictures of his famous dives and tricks in the air are then thrown on the screen, the performance concluding with a sensational act which is to be kept secret until after the first public exhibition.

What the Whisk Broom Indicates.

Whoever he may be, the man who carries a whisk broom in his pocket, always is very popular on the road, especially when it comes time for the noonday stop. It is a useful little appliance and its use helps to separate the gentleman cyclist from the dirty individual who rides. Somehow a tidy machine and a tidy rider always inspire the idea of clean sport and real riding instead of a series of little journeys between repairs.

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THE BICYCLING WORLD and MOTORCYCLE REVIEW

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New York, U. S. A., Saturday, January 5, 1907.

No. 15

TRYING TO CUT OUT AMERICA

Other Cycle-Making Countries Striving to Win Japan's Affections—Canada the Most Ardent Suitor.

Japan, which during recent years has been America's best friend in respect to the purchase of bicycles, is being most furiously flattered by other cycle-producing nations. Great Britain early appeared on the scene and made substantial progress in the Japanese affections and recent advices from the Empire report that France and Canada had arrived on the ground and were doing some fascinating ogling.

The Canadian, of course, represented the Canada Cycle & Motor Co. and not only brought with him some 30 different models but after "sizing up" the American and British machines that are most popular, he left word that his company would produce a bicycle specially for the Japanese demand and combining the good features of both. A British resident of Kobe has written to the press of his native land predicting that the Canadian will prove a "dangerous competitor" and urging the home manufacturers to "look sharp."

He points out that the same conditions that caused the shrinkage of the American imports—they decreased to the extent of about \$100,000 during 1906—are now operating against the British trade in Japan, i. e., the influx of cheap British machines, which because of their poor quality spoil the reputations of high-grade machines.

"American cycles have become unpopular owing to their deterioration in quality," he says. "The fault did not lie with the manufacturers, but with the Japanese. They clamored for cheap wheels in order to compete with the high-grade machines. So many cheap bicycles were imported, all lower in grade than the other, that in a

short time the Japanese got tired of them and disgusted, and they turned their attention to British manufacture.

"British machines, though higher in price than American, were readily taken up, as they were a novelty, and of a different style. Until a year or two ago, the trade in British machines was controlled by those who handled the Humber, Centaur, Singer, Quadrant, and Rudge-Whitworth. All these cycles sold well, and were in the hands of men of means, influence, and experience. Forgetting their experience with cheap American cycles, those who did not handle the above machines managed to import several other lower grades, and now we again see the competition that was experienced previously with American cycles, and prices are much cut to effect sales.

It is my advice that trade in British cycles, if allowed to remain under the present conditions, must suffer seriously, and the manufacturers run the risk of meeting the fate of their American confreres, unless they wake up to the occasion and re-arrange matters before it is too late. My advice is for all to make a standard machine, and place the business in the hands of those who are actually in the trade in Japan to stay, and who are experienced in this line of business."

Vosburgh Absorbs Loft's Business.

J. R. Vosburgh, Johnstown, N. Y., has purchased the cycle business conducted by W. H. Loft for the past ten years at Gloversville, N. Y. It will be removed to a new location and under the management of Frank Fish will be continued as a Vosburgh branch.

Gilbert Heads Jobbing Department.

Fred C. Gilbert, manager of the Pope Mfg. Co.'s Western department, has been appointed manager of the entire Pope jobbing department. The appointment carries with it Gilbert's return to Hartford, Conn., where originally he was stationed.

RESURRECTION OF THE ROYAL

Returns to the Motorcycle Field Backed By a New Company—Unique Features of Its Construction.

The incorporation of the Royal Motor Works Co., Worcester, Mass., which was recorded last week, makes public what has been known to a number of persons for some little time, i. e., that the Royal motor bicycle would make its reappearance on the market during the current year. The work already has progressed so well that the new company expects to take possession of its plant in Worcester within a few days and to begin making deliveries about February 15th.

The composition of the company is not yet public property, but it consists chiefly of Worcester men, the management being in the hands of those who are undeniably experienced.

While "Royal" may be a strange name to the later crop of motorcyclists, it was a term to conjure with in the early '90's. The original model was inconspicuously displayed by its inventor, Emil Hafelfinger, at the Madison Square Garden show in New York in 1901 and there is no gainsaying that it created a distinct sensation. By comparison with the heavy, cumbersome motorcycles that then existed, it was a paragon of beauty and eye pleasing simplicity and compactness. Soon after the Royal Motor Works was formed to manufacture it but not only was the demand unripe but delays in deliveries and an underpowered motor—it was rated at but 1¼ horsepower—caused the abandonment of the project. Hafelfinger profited by the experience. At his leisure, he produced a larger motor, one of 2¾ horsepower and two machines to which it was applied have been in constant use for more than two years past. One of them, the property of Paul Hagenow, of Hoboken, N. J., has a

record of more than 15,000 miles. It largely was the behavior of these machines that led to the formation of the new Royal Motor Works Co.

While the motor has been enlarged and several new features added, the general outline of the 1907 Royal differs little from the original Hafelfinger model. The most distinctive feature of the frame itself, the four tubes curving from the crank-hanger to the seat post cluster to the outline of and forming a cage for the motor, are retained, and are a beautiful example of tube bending. In the Royal frame, two plates of steel pass from left to right at the top of the motor cage; one between the rear pair and one between the front, and are brazed in. Midway on these plates is bolted a strip of spring steel, running fore and aft, and the top of the motor comes to within 1-64 of this retaining bar. A heavy hexagon-head bolt passes through the bar and screws into the center of the head, binding the plate firmly to the motor. Thus while the slightest side or forward movement of the motor is made impossible, there is a certain chance for "mechanical life" between the motor and the rider which it is claimed is beneficial to both. The four tubes enter pockets on and are brazed to the crankhanger. On the hanger are four lugs, machined to fit recesses in the motor base, and through these lugs and the base pass hardened bolts, retaining the motor in exact relation to the transmission.

And it is in his transmission that Mr. Hafelfinger's friends think that he has achieved a great victory. His model of 1900 was not the result of guess work, but had been worked out from persevering experiments point by point that led to the conclusion that the correct mechanical method of taking the power from the motor to the countershaft was through a pair of gears. Like the first model, the Royal transmission will comprise a pair of enclosed gears and but one chain with which the machine starts, runs and stops. No additional chain is required to operate its coaster brake in the rear hub, nor is there other mechanism for driving from the crank axle to the rear wheel employed than the single $\frac{1}{4}$ -inch roller chain. There may appear to be mechanical contradiction in these claims, but the fact remains that the turning of the pedals instantly starts up the machine, turning the back wheel and operating the motor; the motor applies its power and drives the machine while the feet are at rest, or, upon back pedaling, the brake in the rear hub is applied.

The rear hub is of a special design by Mr. Hafelfinger along the lines of the Morrow patents, and is being made to order for the Royal by the Eclipse Machine Co. It is of considerable fewer parts than the average coaster, and owing to its simplicity, allows of great braking surface and power. This brake will be supplied only to the Royal Motor Works. The front hub is harmonious in design with the rear, and

is specially wide. In tires the prevailing size, $2\frac{1}{4}$ -inch, will be followed, the favorite detachable type being given preference.

The frames are 22-inch and are built of Shelby steel tubing throughout, about 20 feet of tube being used in each frame. The top tube is $1\frac{1}{4}$ -18 gauge, the lower, $1\frac{1}{4}$ -16 gauge. The rear tubes are $\frac{3}{4}$ -inch, 18 and 16 gauge respectively. The motor cage tubes are $\frac{1}{2}$ -inch-16 gauge.

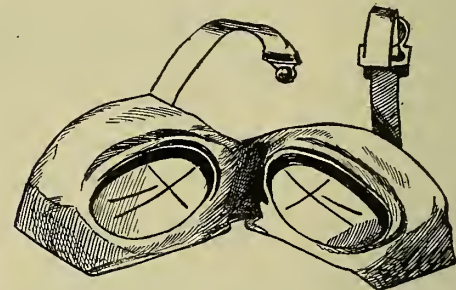
In electrical detail, Hafelfinger has worked out a battery of the end to end type but composed of standard 6 by $2\frac{1}{2}$ cells. A Splitdorf coil with handsome case will be used. The carburetter is of the float feed type, housed in an aluminum casing.

In the motor, however, is Hafelfinger's refining hand and long experience shown to best advantage. The bore is $2\frac{3}{4}$ and the stroke $3\frac{1}{4}$ -inch. The weight is thirty-eight pounds and the makers claim that a higher percentage of their motor weight is in the fly-wheels than in any of the high speed motors on the market. These proportions were sought with a view to slow and steady riding in city streets, which is impossible with high compression motors with light fly-wheels. In the matter of straight speed its makers think some surprises will take place in the 110-pound class before the season closes. The two-to-one gears are placed within the motor base, allowing very wide bronze bearings. The connecting rod is drop forged and has wide bearings. The piston is the three-ring prevailing type. Of the two favorite methods of cylinder making; boring and turning from a solid bar of steel, or casting with flanges on, the Royal followed neither, but developed a plan from the two. Desiring a deeper and thinner flange than could be cast, yet knowing the inferiority of the steel cylinder to the cast, they cast their cylinder walls and flanges solid and then turn up the flanges to the desired lightness. While not a cheap method, it has resulted in a lot of cylinders that will be commented upon by those who appreciate good work. The motor, incidentally, is the product of the Eclipse Machine Co., Elmira, N. Y., and have been made under the personal supervision of J. E. Morrow, son of the inventor of the coaster brake, and a man of considerable gas engine experience. Nearly 1,000 of them are nearing completion but none will be permitted to leave the factory which, after limbering up, and brake tests does not show $2\frac{3}{4}$ horsepower or better. A binding agreement on this point exists between the Royal and the Eclipse concerns, while the latter have good reasons of their own for wanting each motor to develop every ounce of power possible.

It will not be the policy of the Royal Motor Works to place agencies indiscriminately. Certain requirements will be made of their agents, and they, first of all, must be active, practical motorcyclists.

Glassless Goggles and Their Advantages.

Glassless goggles is the very latest in the novelty line, a French eye specialist having hit upon a new idea in eye protection which, it is claimed, will do away with the disadvantages of the present type. Instead of glass the lenses are made of thin pieces of steel, in each of which are three narrow slits, scientifically cut so that the wearer can see everything in front of him. The efficiency of these slits is based upon the principle that an opening of a small diameter has the same effect upon the lum-



inous rays as the central point of a convex lens.

If the eye is placed near to the opening the angle taken in is very large and proportionate to the diameter of the opening. The vision obtained through the slits is claimed to be brighter and sharper than with ordinary goggles, while blurred sight caused by rain, mud, dust, steam and so forth, is entirely eliminated. There is no draught because the heat from the eye forms a cushion that prevents air and dust from entering. One of the slits is cut horizontally, and is intersected near the nose by a perpendicular slit, the junction of these two slits forming a right angle. Below the horizontal slit is another slit which is cut at a slant toward the outside of the lens. The outside of the lens is nickel-plated, while the inside of each is enameled black. The main part of the goggles is made of soft grey leather and an adjustable headband of elastic is fitted to them while a small strap connecting the lenses makes them adjustable to any pair of eyes.

Ferguson Makes a Change.

P. H. Ferguson, formerly with the tube department of Peter A. Frasse & Co., of New York, has resigned to accept a position with the Seamless Tube Co. of America, whose headquarters are in Pittsburg. As a tube expert, Mr. Ferguson has for a number of years been well known in the trade.

Emblem Will Have a Show, Too.

During the Madison Square Garden automobile show in January, the Emblem Mfg. Co. will have a full line of bicycle samples at the Victoria Hotel, very near the show building. W. G. Schack, the company's general manager, will have the samples in charge.

SHOWN BY THE EXPORT FIGURES

American Bicycles Holding Their Own in the World's Trade—United Kingdom Again a Growing Customer.

During the month of November, 1906, a marked decline in the totals of exports develops the usual falling off accompanying the close of the selling season. The actual drop of \$22,621 from the close of October, however, furnishes little indication of the actual condition of the trade, unless it be compared with the corresponding values for the same month of 1905, when the actual returns are found to have diminished only by the insignificant amount of \$121, as applying to the grand totals. The entire business for the month is reported at \$72,437, the trade with the United Kingdom with \$14,275 to its credit taking the lead and nearly equalling the demand of the entire group classified as Other Europe; while Mexico, British Australasia, the Netherlands and Japan, follow in importance in the order named. This shows practically the same situation as existed at the close of October barring the cases of Japan and the Netherlands, the former showing a drop of \$18,725, and the latter an increase of \$3,444.

As to the totals for the eleven months just ended, a partial recovery from the slump of a year ago, which showed a loss of some \$300,000, has been developed, the totals for 1906 amounting to \$1,320,964, as against \$1,210,316 for 1905, or a gain of \$110,648. The United Kingdom still reveals an increasing demand for the American cycles and parts, other indications to the contrary notwithstanding. The returns for the eleven months just ended point to a gain of \$67,448 over those of the same interval in 1905, while the gain over the first eleven months of 1904, which was reckoned a hopeful period, is \$20,849. Thus the falling off during the month is seen to have been due largely to conditions governed by the time of year rather than by any more intimate causes.

Cycles, and Parts of

Exported to:	1905.
United Kingdom	\$6,538
Belgium	1,750
France	1,633
Germany	2,352
Italy	5,654
Netherlands	18,483
Other Europe	1,237
British North America	6,402
Mexico	3,479
Cuba	2,042
Other West Indies and Bermuda....	1,010
Argentina	887
Brazil	2,310
Other South America	9,281
Japan	6,749
British Australasia	1,890
Other Asia and Oceania	897
Other Countries	

Total.....\$72,594

Miami's New General Manager.

C. H. Ballew, who has assumed the general management of the Miami Cycle & Mfg. Co., Middletown, Ohio, and who has applied himself to the doubling of the output of Racycles, is no stranger to work of the sort.

Mr. Ballew, who is here pictured, is a consulting engineer well known in both



C. H. BALLEW

New York and Chicago, who for ten years has made a specialty of the design, equipment and reorganization of manufacturies and was engaged by the Miami principals because of his reputation in that line of engineering. In Chicago, Mr. Ballew was associated with Bion J. Arnold and in New York was identified with the Waterbury Co., whose several branches of manufacture he successfully reorganized.

Davega Becomes a Corporation.

I. Davega, Jr., who deals in bicycles and supplies among other things, on West One Hundred and Twenty-fifth street, New York City, this week took out articles of incorporation, with \$10,000 capital. R. Louise Davega, I. Davega, Jr., and F. Ottolengui, all of New York City, are named in the papers.

Nov.	11 Mos. Ending Nov.
1906.	1905.
1904.	1906.
\$14,275	\$232,750
3,878	49,762
410	76,273
1,408	106,170
2,475	35,377
4,933	76,406
14,467	151,537
1,135	111,059
6,596	40,671
2,885	31,581
1,466	30,072
579	19,321
1,583	11,850
1,846	18,405
4,244	308,080
5,643	151,757
3,935	54,678
715	14,927
	186,151
	22,659
	64,304
	54,190
	21,121
	41,707
	171,114
	111,285
	59,920
	36,460
	23,490
	12,910
	5,856
	15,886
	252,251
	80,043
	43,041
	7,928
	253,599
	24,828
	18,844
	78,429
	27,036
	115,208
	225,993
	64,986
	99,231
	28,912
	19,499
	17,402
	9,760
	19,391
	200,912
	74,191
	27,218
	15,525

\$72,473 \$1,520,676 \$1,210,316 \$1,320,964

DANGERS OF VALVE BREAKING

How the Serious Consequences Both to Cylinders and Pistons May Best Be Guarded Against.

One of the rarest accidents which may befall a rider on the road is the knocking of a hole in the cylinder head or piston through the breakage of a valve and the straying of some of the fragments into the interior. Yet it is one which is of such serious consequences when it does happen that it should be guarded against with extreme care. Unfortunately, the only possible means of prevention which may be taken lie at the discretion of the designer, the user being helpless in the face of his decision to use this or that form for the valves, or to employ such and such metals in their construction, be they fit or unfit. What the user can do, however, is to inspect the heads and stems at frequent intervals in order to detect any possible flaws, and in this way, he may possibly discover a latent disaster in time to forestall it by substituting a new part.

A broken inlet valve is rather more likely to lead to this accident than is a broken exhaust valve, for the reason that the former is subject to the suction of the incoming charge, says an exchange in dealing with the designer's burden of responsibility. In order to minimize the danger of an accident of this kind the ports in some engines have been cast with a thin central bridge, which acts more or less as a safeguard against the pieces of the valve entering the cylinder. Obviously, the most effective preventative of trouble of this kind is to use valves which possess the least liability of breaking in service, and the special nickel steels used for this purpose by careful manufacturers come very near the ideal in this respect. The valve and its stem are a single forging, in the best practice—the custom of riveting the head on to the stem having generally been discarded by the leading designers. Special attention is required in the form of the portion where the stem expands to form the head, as this is the most vulnerable part of a valve.* A fillet of liberal dimensions ought here to be provided.

The adoption of the mechanically-operated inlet and exhaust valves of improved cam design has greatly reduced the danger of broken valves. Indeed, a uniform acceleration cam and spring can be so proportioned as to reduce the velocity of the valve at the moment of seating to zero, theoretically. Under such a condition the valve is not subject to a blow and should never break. In practice, however, there is always a slight impact between the valve and its seat.

The Dealers Who Pinned their Faith to National Bicycles

in 1906

were the men who did business on

"THE SUNNY SIDE OF EASY STREET"

They had the bicycles with which to quickly answer the "Show me" demand—the bicycles that are not like the common run of bicycles—the bicycles that have individuality and talking points (which are merit points also) and which when sold stay sold and sell others.

**If Your Business Needs a Tonic, Why
Not Try the National Agency for 1907?**

NATIONAL CYCLE MANUFACTURING COMPANY
BAY CITY, MICH., U. S. A.

Our line of Bicycle Tire grades cannot fail to interest any live dealer or intelligent buyer on account of its completeness, its quality, and its prices.

Write our Branch House nearest located to you for quotations and any further particulars required.

"FISK EXPORT"

"FISK No. 66 E. H."

"FISK No. 88 H."

"FISK No. 66"

"FISK PREMIER CACTUS"

"FISK PREMIER"

"FISK PREMIER JUVENILE"

"FISK NEW DEPARTURE"

"FISK MASSASOIT"

"FISK VICTOR"

"FISK MOTOR CYCLE"

(The above words—to the wise—should be sufficient.)

THE FISK RUBBER CO., Chicopee Falls, Mass.

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THE BICYCLING WORLD and MOTORCYCLE REVIEW

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Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should Address us at P. O. Box 649.

NEW YORK, JANUARY 5, 1907

"I enclose check for \$2 in payment of my subscription for the Bicycling World for 1907. The dealer without the weekly visit of that excellent publication must feel like a hermit."—J. R. Vosburgh, Johnstown, N. Y.

Neglect of the Business Feature.

It is passing strange that the makers and dealers in motor driven cycles—bicycles and tri-cars, have paid so little attention specifically to the utilitarian value of the motorcycle. Whatever may be the benefits of economy, dispatch, certainty or hygiene of the motorcycle for the seeker after pleasure, those same features apply equally well to the man whose business carries him abroad along the line of the open road by day or by night. Whatever may be the pleasure derived from riding, may be granted in just about the same measure to him who rides for recreation as to him who rides because he has to get there. The principle is the same in both cases, the accessory benefits are the same and only the object is different. Somehow the man who is out for fun usually spends a little more and makes a little more noise, and is a little more enthusiastic about the clouds

and the pole star than the man who is out because he has to be, and so the case of the fellow who wears his working clothes out of doors, is apt to be forgotten. Nevertheless he is a very numerous fellow, he appreciates a kindness done him especially when it helps him to better working efficiency, and his money is just as green and often just as long as that of the chap who wears his hair parted all day long and gets off at four-thirty o'clock.

The commercial idea insofar as the motor bicycle is concerned is one that evidently needs encouragement. It is not novel, nor is it difficult to inculcate, into the head of the man possessed of the average amount of grey pulp. A saving of time on the road, a saving of labor and worry, a saving of expense by the year, by the month and by the day, a saving of actual cash by the ability to meet engagements promptly and to make more miles in a day, a saving in convenience by not having to wait for trains or stand on some one else's feet in a crowded trolley—all these little savings appeal readily to the man whose life is one continual casting up of a balance which persistently swings the wrong way. As for the tri-car, the principle is the same again. Here, however, is the additional advantage that for the man who has certain wares to deliver in a certain specified time, and finds the highway too roundabout for walking and the back fences too high for climbing, is able to deliver them on time for a change when he has a light and handy vehicle to carry them, suited to the purpose. Boy hire is an expensive item, too, and when three boys can be replaced by one man who will do the same work in less time for no more money, and have leisure to grind coffee between trips, Mr. Grocer is apt to outlay a little money in motorcycle purchase, just for the sake of pleasing his customers—if only he knows about it.

To put the matter more plainly, the commercial uses to which the motorcycle may be put are as varied as the commercial uses to which the owner may apply himself. As a servant of the individual it lends itself to his mood and partakes of his character. If the services of the motorcycle are not employed by men who have practical use for them it must be either because they cannot afford them or because the matter never has been set before them in the right light. When a machine is being advertised as good for pleasure, it costs little or nothing

to add, "and business," and it may do some good. If to the arguments for the value of the motor bicycle be added a few words in regard to its adaptability to the uses of the business man, certainly it can do no harm—and it may do some good. If the man who buys a machine uses it in his regular daily work and finds its use of advantage, it is most decidedly up to the agent to find out about it, and tell the news. That is likely to be of advantage, too. People will not see a thing until they are shown, and the subtle function of demonstration which is the privilege of the salesman and the agent, must be applied to every possible branch of the field if the desired fullness of the harvest is to be realized. There is a wealth of undeveloped possibility in the motor bicycle and its three-wheeled confrere, but it is only to be exploited by persistent endeavor along lines which are practical, of which this business aspect is in no wise least.

Bicycle Design Not at a Standstill.

Novelties existing in a degree which is patent to the eye of the most casual observer, are sufficiently rare in the bicycle industry at this time so that the development of a machine which embodies such striking characteristics cannot be otherwise than startling. The very least details of construction have been standard for so long a time that any considerable alteration in them is bound to excite a deal of comment and draw attention to the model in a way that must be flattering to the maker and profitable to the dealer. A case in point is the almost simultaneous appearance this winter of two machines of totally different design, in each of which is embodied a form of the truss frame which at one time had no little vogue. Just at this time when the dealer is crying out for something new to talk about, it is especially gratifying to find the desired "talking point" coming out. Aside for its own peculiar interest in a technical way, the fact merely goes to show that the realm of development has not been altogether exhausted as many would have held a few months ago, but on the contrary that novelty does exist not simply in very small details, but occasionally at least, in striking measure.

This is an opportunity for the dealer to seize upon with all the eagerness of long unquenched thirst. Only recently, a large handler of bicycles was quoted in these columns as bemoaning the paucity of un-

CORRESPONDENCE

The Magneto Situation.

Editor of the Bicycling World:

usual details in the machines which are succeeding each other from year to year. "If there is nothing about this year's bicycle which was not a part of the corresponding model of last, how can I be expected to sell goods?" was the gist of his plea. At that time the importance of even the smallest changes in detail from this viewpoint was discussed and the desirability of "playing up" new ideas fully emphasized. Here is a case, however, where the novelty is ready to hand, and in a form which is readily exploited to even the dullest of customers. The various pros and cons of the trussed frame, its advantages in strength, rigidity, weight, endurance and cost—all must come up for discussion and be met with suitable answers from the dealer. If it happens that he is not a representative of either of the firms which have gone in for frame trussing, the result is the same, and the very fact of their advocacy of the idea furnishes a foothold for the contrary arguments which must react in favor of his own line.

In this way an innovation, even though it be of a nature which is not acceptable to the average rider, may be turned to good advantage by the wise dealer. In other words, the introduction of novel features even on a single make of machine, is sufficient to give a healthy stimulus to the trade, and wake up some of the sleepers who have been lulled to rest by the frequent reiterations of the old arguments, hypnotized by the sight of a dozen wheels all of different make, and apparently differing only in the name plate. Without attempting to go into the theory of the trussed frame in any way, suffice it to say that it possesses certain advantages which no other type can have. Whether the diamond frame was not the "last word" after all, as it had so long been believed to be, are questions for the user to decide in his own fashion and in his own good time. The point is that there are changes going on in the industry even though they take place so slowly that as scarcely to be perceptible. Whether he approves of them or not, it also is evident that they furnish the opening which every dealer must have longed for many times—the opportunity of talking along a new line, and arguing with something to argue against. The very contention for something new is sufficient to excite unusual interest and that very interest may be made the basis of good lucrative business.

It gave me pleasure, as a motorcyclist and practicing electrical engineer, to read in your issue of Dec. 22, the description and remarks as applied to the new Splitdorf magneto used by Mr. M. E. Toepel on his Indian. If I were considering the purchase during this coming season of an Indian or any other American machine, I should certainly order it equipped with magneto ignition. This would hardly be necessary if a foreign machine were contemplated, since foreigners have almost universally adopted the magneto as the standard and regular thing.

In regard to the particular magneto mentioned, would say I remember with great distinctness the ease with which my genial one-armed friend, Mr. Toepel, manipulated started and stopped his machine on the last century run of the New York Motorcycle Club. On this run there were three makes of machines fitted with magneto ignition, Mr. Toepel's Indian, J. J. McLaughlin's two-cylinder N. S. U., and the writer's F. N. four-cylinder, and none of us so much as touched our magnetos during the entire run. In fact, as far as the magneto on my F. N. was concerned, it had not been so much as adjusted since the machine was put into commission. If I am not mistaken, also, Mr. Toepel's magneto has not required attention since its installation on his Indian. I have found, by actual experience with both forms of ignition, that there is a certain security felt with a magneto fitted to your motorcycle, which is utterly lacking when batteries are the primary source of power. I think Mr. Toepel will say the same thing if you ask him. He is certainly all enthusiasm on the subject of magnetos—and so is everyone who has given them an intelligent trial. The talk you hear against the magneto is forthcoming either from those who have never tried this almost ideal form of ignition, or who from ulterior motives are trying to discourage the adoption of this new candidate (i. e., new in America) for the popular favor of motorcyclists.

About a year ago an English magazine started to advocate the use of, and encourage discussions regarding, the two-speed gear and free engine clutch as applied to motorcycles. Every issue teemed with this subject. Makers, dealers and individual riders aired their views and opinions in the columns of your up-to-date foreign contemporary. What was the result? At the last Stanley Show the much discussed improvements were incorporated in many of the 1907 models. In my mind there is no doubt but that this was the direct result of the matter printed in the above mentioned motorcycle publication. Manufacturers—if they be wise—give the buyer what he desires. Especially is this the case

when the innovation receives the support of prominent specialists, as it did in the present instance.

Now I did not cite the above instance to get the Bicycling World to advocate the adoption of clutches and gears, but rather to illustrate the immense influence a good trade publication has upon the industry it represents. As far as two-speed gears and free engine clutches go, we Americans are not yet sufficiently advanced in the game to seriously consider their adoption. Nor am I certain that it is advisable to thus further complicate the design and construction of the motorcycle.

Why cannot the Bicycling World, from now on, take its stand for the magneto, just as its English contemporary did for the two-speed clutch idea? That is, encourage everyone who has ideas on the subject to send them in for publication. As the oldest trade paper it seems to me it should be its position to foster any American innovation which comes so well recommended to us by foreign practice. There must be many of your readers who have valuable ideas upon ignition matters. Why not jot these down and send them to your worthy editor for consideration? I for one take my stand for the magneto. Now you battery and coil advocates bring your guns to bear and open fire! Let the discussion be friendly, and let nobody lose sight of the object of the discussion, namely to arrive at the truth, and ascertain the best form of ignition system for use upon American motorcycles.

EARLE L. OVINGTON.

Important Invoice Rules for Exporters.

Nicaragua has promulgated a new set of invoice regulations which it would be wise for all intending exporters to follow, as attention to these minor details means much in foreign countries as to assessment of duties and release of the goods.

Consular invoices of any shipment must be in successive numbers, 1, 2, etc., according to the sheets necessary. They must bear the date of embarkation or the one previous to it, which will be compared with the corresponding bill of lading of same date, and is to be sent at the same time according to further provisions of the decree governing the subject, and by which it is provided that no registry of merchandise will be verified unless three copies of consular invoice and same number of bills of lading are presented, nor if any bill of lading includes several invoices and different consignees. In case of difference of dates of invoices and bills of lading of one shipment, a fine, amounting to fifty per cent. of the respective duties of such merchandise will be imposed.

"Enclosed find check for another year of the Bicycling World. Can't see how I can do without your bright, breezy weekly visitor."—H. R. Vandergrift, Philadelphia, Pa.

NEW YEAR'S RACING RESULTS

Contests That Helped Mark the Change on the Calendar—Some Surprises and Close Finishes.

Usually the Prospect Wheelmen of New York go in strong for the Tarrytown race promoted by that relic of olden days—the Associated Cycling Clubs—but this year they determined to promote a New Year's race on their own account, and in consequence of this determination, held the most successful "curtain raiser" of the year in this vicinity. The race was from the Prospect's club house in the Bronx to City Island and return, a distance of about 25 miles, and Rudolph Stenz, who finished fifth in last year's race to Tarrytown, beat George Holzhauser, also of the Prospect Wheelmen, to the finish by one minute.

The Prospect Wheelmen had originally intended to include a race for motorcyclists in their plug to City Island, but in response to the urging of the Federation of American Motorcyclists on account of the grave danger attendant thereto, abandoned this part of the program. Despite the weather twenty-four riders started, ten of whom survived, and some of the survivors relate plenty of hard luck experiences.

George Cameron, of the New York Athletic Club, displayed probably as much stick-to-it-iveness as any one. Soon after starting Cameron punctured both tires, changed wheels, but did not get far before both went down again. Cameron said "To Hades with the tires!" and rode on the rim for three-quarters of the distance, finishing third. Holzhauser, who finished second, had pedal trouble, and Charles Martin started fifteen minutes behind the others, because of tire trouble. Martin, however, showed his tiger-like qualities by starting, and he finished fourth. One of the survivors was W. C. Mason, who is 52 years of age. Mason held an even stride throughout and finished fresher than any of the mud-larks. The summary:

H. M. S.

1. Rudolph Stenz, Prospect W.....1:12:00
2. George Holzhauser, Prospect W.....1:13:00
3. George Cameron, N. Y. A. C.....1:20:00
4. Charles Martin, Tiger W.....1:33:00
5. W. Bader, Prospect W.....1:52:00
6. W. Bettels, Prospect W.....1:55:00
7. J. Morrissey, Prospect W.....1:55:30
8. W. C. Mason, Veteran W.....1:57:00
9. R. Souze, Prospect W.....1:59:00
10. K. Holzhauser, Messenger W.....1:59:15

Time Prize Winners:

1. Rudolph Stenz, Prospect W.....1:12:00
2. G. Holzhauser, Prospect W.....1:13:00
3. George Cameron, N. Y. A. C.....1:20:00

William "Farmer" Blum won for the first time on New Year's Day Chicago's classic annual "2:50 scorch" from Thirty-fifth street that city, to Pullman and return, about 14 miles and, considering the wretched condition of the roads, the time—41

minutes—was very good, and nearly seven minutes better than was made last year. Blum's victory was just a bit of a surprise, not that anyone ever questioned "Farmer's" plugging abilities, but because Fred Nelson, of the Century Road Club, had won the title so many times that he was regarded as well nigh invincible.

This year's "scorch" aroused more enthusiasm than any similar event in several years and portends good. Twenty-four riders started, eight of whom finished for prizes, and a number of spectators watched the finish.

Blum won hands down but the real race was behind the winner, between William Studt and Fred Nelson, the five times winner. For the last mile this pair battled, but Studt had the better sprint and managed to beat his rival by one second. The roads were more like ploughed fields and the frozen ruts caused many to fall. Sternberg went down hard at Ninety-eighth street and although bruised considerably, remounted and finished. The summary follows:

M. S.

1. William F. Blum.....41:00
2. William Studt41:05
3. Fred Nelson41:06
4. P. Bigelow41:15
5. Irving Seagle50:00
6. Fred Gruder51:00
7. L. Sternberg52:00
8. J. Moffett65:00

Also ran—R. Newman, A. E. Douady, J. F. Lynch, G. Petetrin, A. G. Langer, J. Patton, J. Spieglehour, Fred Clay, H. Daston, Walter Simpkins, N. Reynolds, R. Anderson and J. Brown.

This year's race was the seventeenth annual, the Two-fifty club being started in 1899, when it was no easy task to propel a high-wheeled bicycle a mile in 2:50, and the only riders who could show a record of that time for a mile or better were eligible. This included only a handful at that time—the Thorne brothers, N. H. Van Sicklen, Charles P. Root, Julian P. Bliss, "Birdie" Munger, Herb Githens and Arthur Lumsden.

W. C. Thorne, now president of the South Shore club, won the title the first year, 1899, then Van Sicklen held it, and he was succeeded by Barrett, and Barrett by Munger.

In 1893 Frank Waller came on, fresh from breaking the twenty-four hour record, but Theodore Smith, riding in street clothes and wearing a high collar, was too fast for him. In 1894 Julian P. Bliss won his spurs, while the plug through the snow in 1895 went to Tracy Holmes, who defeated his team mate, Clarence H. Peck.

Up to 1896 the chief "scorchership" always had been held by the Chicago Cycling Club, but that year Fred J. Volkman of the Lincolns proved a dark horse. In 1898 and 1899 A. J. Nicolet of the Chicagos, captured the plum. Fred Nelson won in 1899 and his brother, O. P., scored in 1900. Since then Fred Nelson has proved his stamina

by winning the title five times consecutively.

Arthur R. Wilcox, better known among the sons of rest who inhabit various parts of easy-going Brooklyn, as "Hard-Luck" Wilcox, at last has broken the hoodoo that gave promise of shadowing him until bicycle riding would cease to become a part of his daily routine. The ceremony at which the hoodoo was dispelled—forever, Wilcox trusts—was the annual New Year's race down the Coney Island cycle path, promoted by the Century Road Club of America. Wilcox won, and won easily, covering the distance from the clubhouse on Eastern Parkway, down the path to the first trolley tracks and return in 49 minutes, which is considered exceptionally good, in view of the heavy condition of the course. Wilcox's victory is attributed to the good judgment he used at the finish. Keeping with the leading bunch until within a hundred yards of the tape, he jumped and unwound so fast the others could not hang on. Wilcox crossed the tape thirty yards to the good.

On account of the bad weather only ten riders lined up at the start of the race. Promptly on the stroke of midnight they were given the word to go. Of the ten starters five represented that unusual organization, the Cork Pullers, some of whose members, it is whispered, hold race meets once in a while for cash "pools," but that has no bearing on this race. Suffice it to say, that the five Cork Pullers "copped" the first five prizes.

Louis J. Weintz, the "multi-club-ed" rider, came in second a fifth of a second in front of "Frankie" Fisher, who writes songs in the dull season. Only a fifth of a second separated John A. Eubank and Fred Warner, who finished next in order. Art Kinloch, Victor Lind, Ernest Grupe, J. H. Clowes and Harold Grupe straggled in later. Ernest Grupe, who will be doubtless a successor to Wilcox's cast-off title of "Hard-Luck," came in with a tale of a fall, and Clowes said that he had collided with a horse. The winner rode a Pierce bicycle shod with Palmer tires. The summary:

Min. Sec.

1. A. R. Wilcox, Cork Pullers.....49:00
2. L. J. Weintz, Cork Pullers.....49:02
3. F. Fisher, Cork Pullers.....49:02½
4. J. A. Eubank, Cork Pullers.....49:02¾
5. Fred Warner, Cork Pullers.....49:02¾
6. Art Kinloch, C. R. C. of A.....49:06
7. Victor J. Lind, Park Circle.....
8. E. G. Grupe, Park Circle.....
9. J. H. Clowes, C. R. C. of A.....
10. Harold Grupe, C. R. C. of A.....

Immediately after the finish of the Coney Island cycle path race, James Clowes, Ernest G. Grupe and his brother, Harold, and Arthur Kinloch, set out to do the first century of the year, with a race home from Valley Stream, 16 miles. That such a ride under such muddy conditions was not a

pleasure, each member of the mud-plugging quartet is now willing to admit and some of them were several times ready to quit during the ride. The race from Valley Stream to Eastern Parkway was more in the nature of a procession, with Kinloch in the lead taking mud from nothing but his own wheels. When he finished he had to make his identity known as his distinguishing mark—his fiery hair—had been dyed in plastic mud. Clowes, who is lame, finished about twenty minutes back of Kinloch, and "Hard-Luck" Grupe and his brother came in some time later. Kinloch rode a National bicycle fitted with Fisk tires.

The Associated Cycling Club's annual New Year's "run" to Yonkers and Tarrytown, N. Y., was rather a dismal affair, not alone in regard to the weather conditions at the time, but as to the race itself, which seems to mark the beginning of its end. Although reinforced by a couple of darkies and messenger boys the bicycle aggregation at the start was not very strong, and as for the motor bicycle division, well, if it had not been for the strenuous efforts of the Jenkins-Bridgman trade clan who drew heavily on their "kindergarten" to the extent of an office boy, it is doubtful if this part of the run would have taken place which would not have caused regret.

About the only local color to be observed around the start at Fifty-ninth street and Broadway, was the mud color of the streets. Gloominess pervaded everything. There was not even the usual horse play among the riders as they awaited the signal to start. Although it had been whispered around that the police would lend their assistance, the only officer in uniform was a bicycle "cop" just off duty who pushed one of the bicyclists off, and with the other hand cautioned the spectators to stand back and give the riders a chance. A young man who looked very much like Policeman Benjamin Mallon was in civilian's attire watching the start and when the quartet of motorcyclists got away "he" and a chauffeur followed them up Broadway at a speed of about thirty miles an hour.

As usual the "run" was to Yonkers, 13½ miles, and thence over the muddy and slippery hills to Tarrytown, 23½ miles. Not many more than a hundred saw the start and this congregation was composed chiefly of a few sensible riders who expected to ride but thought better of it, and a few New Year's revelers with rattlers, tin horns and feather dusters.

Five minutes before midnight, Joseph Oatman, the major domo of the affair, lined the bicyclists up and gave them the usual "caution" about exceeding the speed limits within the city boundaries, after which he betook himself and frock coat to the curb and watched the seconds pass.

"One minute more," said the starter.

"What's the movement, Waltham or In-

gersoll? It makes a difference," said one of the riders who wanted to be facetious.

Just about that time, however, the little 22-calibre made-before-the-war pistol popped, so he did not get a reply, and the nine mud pluggers started.

"I can pick the finish now," said one of the sensible riders who did not go in the "run." Forsythe first and Kessler second at Yonkers and the order reversed at Tarrytown. Why, its a cinch that Kessler, Forsythe and Bourget are working together." And those who heard the remark and personally knew the riders mentioned entertained the same opinion, which later was verified when the returns came in.

Half an hour later the four motorcyclists lined up. They were Kreuder, who has won the "run" for the past two years and who seems possessed of the "sight of an owl"; George Wood, of the New York Motorcycle Club; Alex Fiedler, the monitor of the "kindergarten" class, and somebody by the name of Rogers. They were all and their ranks were due for a depletion before very long.

Yonkers, being a small place, does not afford much in the way of merrymaking for a New Year's eve, so the "owls" of that village always look forward to the arrival of the bicyclists and motorcyclists at the beginning of each year. This crowd, to the number of several hundred, assembled in Getty Square to watch the finish of the first stage of the "run." The first bicyclist to reach Yonkers was John Forsythe, who beat "Mart" Kessler by about half a wheel's length. These were the only two that finished together, Philip Bourget reaching there two minutes later, and Roe, the one-armed messenger boy, and J. C. Howell, of Dobbs Ferry, checking in after. Forsythe's time from New York City was 49 minutes, which was very good considering the roads. Last year he won at Yonkers in 37 minutes but the weather was warm and the roads perfect.

There was not much to the motorcycle "division" when it got to Yonkers, Kreuder coming in alone, with Fiedler behind some fifteen minutes. Kreuder rode the 13 miles of mud and slime in 34 minutes 30 seconds, which really is worthy of mention. The "record" for this distance is 27 minutes, which was made by Kreuder last year. What happened to Wood and Rogers no one seems to know, and those that do refuse to tell. Rogers, it is said, never got beyond Seventy-second street and Wood is said to have had engine trouble just after the start. He went a short distance beyond 149th street, and gave up.

Despite the apparent preconceived arrangement between Kessler, Forsythe and Bourget to "hang" together, something must have altered their plans or have happened to Bourget, as Roe, the one-armed rider, beat the Frenchman by a fifth of a second at Tarrytown, the finish. First honors at that point were won by Kessler, who

finished ahead of Forsythe as much as the latter had finished in front of him at Yonkers. Roe followed in twenty minutes with Bourget a half length behind, and Howell seven minutes later. From Yonkers to Tarrytown was the worst stage of the journey. The riding is not like flat floor riding even at its best, and with the road covered with three or four inches of mud and without a solitary star showing in the sky the effect can better be imagined than described. All the riders deserve great credit for finishing at all but more particularly should the praise, if praise there be, go to Roe, for besides having the sight of a night hawk he must possess the strength of a Samson in his one arm. The record for the "run" to Tarrytown is 1:16, made by Kessler in 1906; this year he did it in 1:29, exceptionally good going.

Kreuder reached Tarrytown nearly an hour in advance of the office-boy, Fiedler, and checked in 1 hour 29 minutes from the start. The record made by himself last year is 37 minutes, from which it will be seen that the bicyclists made much better showing than their motoring brethren. As the State law allows a speed of twenty miles an hour in the country the times made show that neither class broke many speed laws, except through which towns they passed. The summary:

At Yonkers.

1. John J. Forsythe, Monroe W....49:00
2. Martin Kessler, Monroe W.....49:00½
3. Phillip Bourget, Monroe W....51:30
4. Albert V. Roe, Postal Telegraph..
5. J. C. Howell, Dobbs Ferry A. C..

At Tarrytown.

1. Martin Kessler, Monroe W....1:39:00
2. J. J. Forsythe, Monroe W....1:39:00½
3. A. V. Roe, Postal Telegraph..1:59:00
4. P. Bourget, Monroe W.....1:59:00½
5. J. C. Howell, Dobbs Ferry A.C..2:06:00

Motorcycle Division.

At Yonkers.

1. A. Kreuder, N. Y. M. C.....34:30
2. A. Fiedler, unattached.....49:00

At Tarrytown.

1. A. Kreuder, N. Y. M. C.....1:29:00
2. A. Fiedler, unattached2:24:00

Fred Castro, the Salt Lake rider who turned professional to ride in the six-day bicycle race two years ago, and who has not since ridden because he found the cash-chasers too fast for him, will probably not be reinstated after all, it was semi-officially learned this week. Castro had several of the bicycle riders get up a lengthy petition asking the officials to restore him to his former amateur status, and although his case will not be decided before the annual meeting of the Board of Control of the National Cycling Association, it is known that the sentiment is against such action.

"Please renew my subscription for the year 1907. Enclosed is the price. It's the best money I ever spent. The Bicycling World is worth all the praise anyone can give it."—Ralph Derbyshire, Fall River, Mass.

AT WORK IN PRACTICAL FIELDS

Motor Bicycles Are Now Being Employed in the Telephone Business With Eminent Commercial Success.

Although the commercial possibilities of the motor bicycle never have been "played up" as strongly as have its advantages from the standpoint of the accessory of the pleasure-seeker, the fact remains that they are attractive, and that the same qualities which lend the motor propelled cycle so aptly to the needs of the individual traveler, are equally applicable whether he be on duty or pleasure bent. Nor has the fact been overlooked during the comparatively brief time that the motorcycle has been upon the boards. The makers have realized it, and many a user has discerned for himself the supreme utility and convenience of the thing from a business point of view, and has applied it accordingly and with profit. Such individual applications have, for the most part, excited little or no attention, however, and so it has come about that the pleasure side of the business has gained quite all the attention of the public, while the more serious aspect has been given the go-by. Hence, it is not generally known that for more than three years motor bicycles have been in regular use by the maintenance department of the Long Island Division of the New York and New Jersey Telephone Company as an adjunct to the field equipment, and one of its most appreciated conveniences. What sort of service this is, and how it has been made to pay, is therefore an interesting matter of inquiry, especially in view of the fact that the machines have been put into the hands of men not specially trained, and men who are too busy in following out their regular work to pay particular attention to the welfare of the mount except within the narrow limits of such repairs as are absolutely required.

Primarily, the local conditions of the territory covered by the lines of the company were such as to make the work of the maintenance department particularly arduous. The configuration of Long Island is such that a large portion of it necessarily lies from three to five miles from the nearest railway station—localities which are to be reached only by way of the common and not always satisfactory highway. When in addition to this, it is considered that the train service is poor, particularly during the middle of the day, and livery rates high at all times, it is evident that rapid intercommunication between any given point and its surrounding territory is at all times uncertain unless some other mode of conveyance be available. Strangely enough, it is more difficult to reach one portion of the Island from another, than it is to reach the same point from New York City—a fact

for which the peculiarity of the land is responsible, and which is little appreciated by the casual tourist who ventures out from the city only occasionally.

In a word, these were the conditions which always had confronted the "bug hun-

and even less tangible form than that which flies through the night air of the countryside or flits through the brain of the maniac. His quest is for that peculiarly annoying brand of difficulty which interferes with the working of the telephone line, just when



THE MOTORCYCLE LINEMAN AT WORK

ters" of the telephone company. Consequently when the superior advantages of the motor bicycle began to be apparent, the idea of putting it into active service in the department under which these operators are classed, took root and quickly sprang up to bear fruit within a short time. In this particular vernacular use of the term, a bug hunter, far from being an entomologist, or even an alienist of searching characteristics, is a very practical individual who preys upon trouble in another

it is most in demand, and just when its service can most ill be spared. Necessarily, he must be able to go to the farthest limits of the field at a moment's notice, to pick out the difficulty at a glance, and set it right in a second of time. For broken lines pay no dividends, and interrupted service from any cause whatsoever, means an absolute cessation of business until the break is found and repaired or the difficulty set right. Hence, the facile and rapid transportation of the motorcycle readily appealed

to the management, and its tentative adoption speedily followed.

The first machine was purchased on May 23, 1903, and immediately turned over to the tender mercies of a lineman who then and there made its acquaintance for the first time. Naturally, the result was a disappointment for all concerned, but perseverance triumphed and at the end of a few months the service was on a satisfactory basis. By the time the first man had become familiar with his machine others had been added to it. The first machine was an Orient and as with a mastery of its mechanism, delays grew few and far between and the service became eminently satisfactory, the same make has been adhered to until now there are six in constant use. Each of the machines covers from 30 to 50 miles a day on the average, being capable of maintaining a speed of 20 miles an hour.

As ordinarily employed, the kit of the lineman, which is far from light, is stood just back of the seat on a platform luggage carrier. To this is strapped a bag containing most of the tools and equipment. The contents of the bag consist of a portable telephone with the aid of which the lineman can "cut in" on any of the wires and get the "wire chief" or head of the maintenance department of the telephone company, or can call up any station he wishes to communicate with, some spare glass insulators, porcelain knobs, tape, screws, battery replacements, wire and a miscellaneous assortment of other small hardware necessary for replacements along the line or in the stations, not overlooking the spurs and their harness with which the lineman "hikes" up the poles. Several coils of copper wire of various sizes are carried along strapped to different parts of the machine when only a short run is in prospect but securely fastened to the platform under ordinary circumstances, this probably bringing the weight of tools and supplies in the neighborhood of 50 to 60 pounds. But despite this additional weight and the hard, constant service to which the machines are put, the cost of operation and repairs have not exceeded \$8.50 for each per month.

The following report by the general foreman of line and station maintenance, Mr. Kuehn, was compiled from figures obtained during two of the heaviest months since the installations of the service. These were June and July, 1905, when thunderstorms especially during the latter month, were of frequent occurrence, the bad weather frequently placed the motorcycles at a disadvantage. But even under such circumstances, the figures conclusively prove that the use of the motorcycle is a decided advantage over the ordinary methods of transportation as it is clearly shown that the same results are accomplished in far less time and at less expense by men using motorcycles than those using the railroads, horses or bicycles. Figures on the cost of work done by routemen during June and

July, 1905, here presented, were obtained by compiling the total number of miscellaneous jobs, total expense, board, regular mileage and the like and time consumed by each of the several routemen in the suburban districts. Some of these men were provided with motorcycles and some were not. The work done in the districts covered by each was similar. The results work out as follows:

Work done by men with motorcycles: 1,294 jobs; average time 1 hour 24 minutes per job. Total cost per job, 58 cents.

Work done by men otherwise mounted: 770 jobs; average time 1 hour 42 minutes per job. Total cost per job, 82 cents.

During or directly after stormy weather when neither bicycles nor motorcycles could be used owing to the condition of the roads, there were 204 jobs at an average cost of \$1.25 each, the average time being 2 hours and 5 minutes.

Thus the motorcycles show a saving of 18 minutes time and a total of 24 cents per job, or a total saving on the 1,294 jobs of \$319.56.

The roads on the eastern end of Long Island were in very bad condition during that season and it was impossible, therefore, to use motorcycles between certain points in one of the districts. This made the advantages and saving in that particular district less obvious than in the other districts. The roads, however, were improved considerably during the late summer and fall of that year, and taking the figures of all the districts, except the one in question as a criterion, the cost per job when using motorcycles will not exceed 52 cents and the time per job 1 hour and 20 minutes. The cost of operation and maintenance of the motorcycles figured out at the rate of about one cent a mile.

In order to further increase the efficiency of the service experiments were made with a home-made side car. A second-hand Orient machine was purchased with which to make the trials and a third wheel was attached parallel to the rear wheel of the motorcycle and held by suitable clamps about 30 inches away. On this a fair sized box was bolted having a capacity of considerable battery material and general replacements. While the entire affair was extremely crude as well as unstable, it served to demonstrate what could be done in that direction. After giving it a thorough trial it was calculated that a saving of 10 cents per station per visit could be effected with its aid. Since then forecars have been provided and can be attached to any of the machines now in use whenever necessary. This not only gives large extra carrying capacity but also throws all the additional weight on the front wheels, thus making the machine easy to handle and not putting any strain on the motorcycle frame.

In addition to its greater economy of operation and maintenance, the motor bicycle develops a great advantage over

the four-wheeled vehicle owing to the fact that throughout a large portion of the eastern end of Long Island the roads are so poor that it is necessary to use the side paths. Still another advantage of its use, is that while riding, the men are not required to exert themselves in the least, and hence after doing a long and tiresome piece of work, they are able to start at once for another scene of trouble or for home, while with the bicycle or in cases where they are obliged to walk for any considerable distance, they frequently are too tired to go on after a long job, but must wait and rest, thus losing a deal of valuable time.

In view of the fact that the service depends so largely upon the "personal equation," machines have been provided only for such men as are thought to be capable of handling them successfully, and more particularly for such as are assigned to emergency work, and therefore are most essentially to be depended upon. When first he is assigned to a machine, the lineman is put through a short course of sprouts on its operation and care and is not allowed its unrestricted use until he has shown himself well qualified to take charge of it. While in active service, however, he is held completely responsible for its condition and expected to get full work out of it. As a matter of fact, the result of the service maintained up to this time shows that the efficiency of the men given over to the work has been more than doubled, and the experiment has ceased to be as such, a regularly organized and much valued service taking its place.

German Sprint Racers Dissolve.

The general decline of sprint racing in Germany during the last few years, is about to cause the dissolution of the German Racing Men's Association, founded in 1895. Since following monster pacing machines became the fashion in Germany there has been very little sprint racing and both the professionals and amateurs consider there is no longer use for their respective organizations. The decision will be arrived at on January 9th, when a motion to dissolve will be acted upon. It is proposed that any funds the association may have in its treasury shall be utilized for assisting track racing men who may meet with accidents on the track and thus be prevented from earning a livelihood.

Propose an Expensive Blaze.

According to cable dispatches from Brussels, Belgium, some motorphobes of that country have presented a most ludicrous petition to the parliament. They ask that every motor vehicle in the country be burned in one great bonfire before 1908, and the resultant scrap metal be sold for the benefit of those who have been damaged by such vehicles.

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TO SAN FRANCISCO BY EASY STAGES

PART III—OMAHA TO DENVER

This is the third of Stanley Bowmar's article describing his motorcycle trip to the Pacific Coast. The first, being the account of his journey from Buffalo to Chicago, appeared in the December 1st issue of the Bicycling World. The second, Chicago to Omaha, in the December 29th issue.

"The Wilds of Nebraska" is a familiar term in the old story books, and I expected to find, immediately west of Omaha, much unsettled country. Here one strikes the great Platte basin, which stretches to the Rockies, five hundred miles away. There is not a hill to speak of—it is an open plain. Not many years ago it was prairie, the undisturbed home of the buffalo and the deer; but now, instead of the open country that I expected, I found prosperous farms, with the Rural Free Delivery service and the telephone system.

No other farmer in the world has such facilities for keeping in touch with the centers of population as the American farmer, thanks to the Rural Free Delivery and the matchless telephone system. In New Zealand I know several city young ladies who have told me that they would not marry a farmer, even if he were fairly prosperous—"too lonely," they say. When I get back, I am going to tell them they should marry an American farmer. Then they could do their gossiping over the telephone and get from their city friends the news of the latest society engagements and marriages with a minimum amount of trouble, which would no doubt suit those who are afraid of becoming lonely out on the hillside where the pines sigh soothingly and inspiringly, or down in the valleys amongst the golden fields of corn.

From Omaha I followed the Old Military road to Fremont. The first nine miles riding was splendid, but then the metal came to an abrupt end, and "the King's highway" was for a number of miles little better than a quagmire. At Waterloo things improved somewhat, for here I struck a sandy subsoil.

Surely, taking into account the thickness of its country population and its prosperity, there is no country in the world with such poorly kept roads as the United States. In the Old Country and throughout the British Colonies, wherever there is any settlement, there are roadmen who are employed to take care of the highways, just as the section men are on the railroads. Each man has a certain number of miles for which he is responsible. One can travel a thousand miles here, and never see the sign of a workman on the roads.

It was midday, July 17th, when I left Omaha, and Valley 35 miles was where I stopped that evening. Heavy clouds hung in the sky next morning. It was evident that the weather, which as we have seen, had been notorious since leaving Chicago, was going to be worse, instead of better.

After a hasty survey from the window I decided to give the storm a race to Freemont, 11 miles. I reached there at seven-thirty, with a fine appetite for breakfast, as the big drops began to fall. All that day it rained and rained and rained—or, rather, by way of variation, in the evening it poured. The next day it was the same, with the exception that, to relieve the monotony, we had some thunder and lightning. The Freemont people told me exactly what the farmers all the way from Chicago had been saying every day, "You're really unfortunate. We've had such a dry season!" Dry season be d—d!

Some one suggested that I wire the Merkel people for a motor sleigh. Progress would certainly have been better on a sleigh than it was on the railway track, to which I took on Friday morning. The track was quite unridable, the ties were so badly ballasted. In the afternoon another storm blew up, and I took refuge in a farm house. This man of the soil, though not very enthusiastic over my mode of getting there, spoke in the highest terms of the western states, Oregon especially. In Portland, he said, they had an ideal climate, which naturally made me feel somewhat envious.

After the storm had passed, I trundled along the railroad track to North Bend, "such a delightful little town." "Now, don't you think so?" said a "sweet girl graduate." Of course, I had not the heart to disagree, and replied that it was absolutely charming.

Between North Bend and North Platte, I made wretched progress. As far as Grand Island, it was the "old, old story"—thunder storms, thunder storms, and desperate roads. Leaving Grand Island behind, however, I also ran away from the bad weather, for no more rain troubled me between there and Denver, thanks be. Saturday, the first day out from South Bend, I made only fourteen miles, (all trundling along the railroad track) to Schuyler; Sunday, thirty to Duncan; Monday, sixty to Grand Island; Tuesday, seventy to Elm Creek; Wednesday was another seventy-mile day, and a day, too, of considerable trouble. In the morning I noticed that one or two of the rivets that held the belt rim in place were broken, but did not realize that there was any imminent danger of more going the same way. I was mistaken, however, for between Lexington and Cozad the whole rim pulled off, and I had to walk six miles to the last named town and then take the back wheel off to replace the two bolts that had wrenched off at the rim.

At Gothenburg I was told that there

were two routes to North Platte—one on the south side of the river, 55 miles, the other on the north side, only 30 miles. The first was, so they told me, a good road; the last, about knee deep in sand. Of course I decided to take the longest route, and set out in great glee to think that I had fifty-five miles of decent traveling ahead. No sand! I soon felt like turning back to tell my informant that he was a liar of the first water, but on reflection I thought it would be indiscreet, as he was a pretty big fellow. Between Gothenburg and the bridge that crosses the Platte river there was sand galore. I made up with a wagoner who was resting his tired team. I told him that I had been given to understand that the road was a fine hard one, and he replied savagely, "That damned yarn is all right—there's a hard one, but it's a hell of a long way down."

This evening, I caused my second accident of the tour. Back in Illinois I had upset a trap. A farmer was driving and leading a horse behind. The horse in the buggy did not take fright, but the other one did; and in its wild plunges got the rope with which it was tied caught on the hub of the wheel, and turned the light buggy topsy-turvy. Fortunately, however, the farmer was not hurt, although his temper was somewhat ruffled. He would have felt, I think, considerably relieved if he had known several languages. In one he could not find sufficient forceable words to express his thoughts towards me in particular and motorcyclists in general. He swore me up and down dale as I ran myself out of breath in a vain endeavor to catch the horse that had broken loose.

This other accident was not so serious. The horse, driven by two young ladies, began to rear and plunge in right royal Wild West style before I came up with the trap, which was traveling in the same direction. Before I could stop, the single-tree pulled off, and the two occupants of the trap scrambled out, and began running around in the sand, calling "Whoa, whoa Dick." Dick did not seem to pay much heed to these instructions, but continued to jump and buck in a peculiar, straight-up-and-down sort of way. Finally we prevailed on him to reconsider the matter, and ran the buggy into a nearby farmer's for repairs.

This mishap caused so much delay that it was not possible to reach North Platte that evening, and, as there was no town on the south side of the river east of the Platte, the proprietor of the River Side

Ranch, near Maxwell, Mr. Urban Oscar, gave me a hearty welcome; and with him and his two bachelor friends, I spent my first night on an American ranch, and a very pleasant time I had.

I reached North Platte early the next morning, and spent the rest of the day, or most of it, looking over the connections and the motor, which had developed an extraordinarily keen appetite for batteries. In the evening, as it looked like rain, instead of stopping over night at North Platte, I ran on to Southerland, 26 miles, in the hope of leaving the rain behind, which I did.

From North Platte to Julesburg, my next stop, the road, often nothing better than three yawning ruts with picturesque sunflower borders, runs through some large cattle ranches. The land is sun-baked. Between Omaha and North Platte the valley is irrigated, while west of Platte, there are few irrigation canals. In a few years all this will be altered, and these dried, sun-baked fields where the cattle roam discontentedly and thirsty, will be green with alfalfa and corn. The heat here was terrific, and my jersey was soaked with perspiration and my lips became parched and cracked.

Near Ogallala I met three prairie schooners, a horse-trading party. Following their camping vans was a motley group of donkeys, mules and woe-begone horses, which were, one and all charged with a new lease of life when they heard the motor, and forthwith scattered to the four winds. The driver of the last wagon, a savage-looking individual with a raucous voice, poured out on me some of his best brands of oaths. Through Nebraska, Colorado, Wyoming and Nevada I met a number of these parties, who seemed to be making the overland trip fairly comfortably, if very slowly.

A little north of Ogallala is Ash Hollow, the celebrated Indian camping ground. Many of these little Nebraska towns have stirring histories connected with the time of the Indian wars.

The boundary line between Nebraska and Colorado is a few miles east of Julesburg, where, instead of keeping straight on to Cheyenne, I turned south to Denver.

It was part of my plan when I set out, to work a month or two in some city about half way across. Denver, situated right in the shadow of the Rockies and the center from which can be visited some of the finest mountain scenery in America, suited my purpose admirably. Colorado, too, has a charming climate. The days are bright and clear, hot but never oppressive, and although the thermometer may rise to the nineties, it is always delightfully cool in the evenings.

Between Julesburg and Sterling, there is little settlement. Most of the land is occupied exclusively by stock raisers. For the first twenty miles the road turns and twists in such a manner that I got lost with utmost alacrity. It is like the famous Maze in Hampton Court, London. Fol-

lowing what seemed to be to be the traveled road, I went through a gate, and was soon out in the open prairie, amongst several thousand inquisitive young cattle, who on their own initiative formed a somewhat undesirable body-guard. This road led to nothing more cheerful than a forsaken hut. There was not a ranch house in sight. "A guiding star," however, turned up in the shape of the smoke of a railroad locomotive, five miles to the right.

There were numerous fences between that precious railroad track and me, but I went straight for it, manœvering the machine under some, and lawlessly through others.

My assumption that the road would run parallel with the track proved to be correct. It was consolation to know that I was on the main highway, but the state of the road itself was not such as to cheer the heart of a motorcyclist. It had been newly graded.

Troubles did not come singly this afternoon. It was growing late, the road was now hard, and I was making pace to reach Sterling before darkness proper set in, when all of a sudden the pedals began to revolve to beat the band and knocked my feet pretty well over the handle bars. Another header was added to my lengthy list. The coaster brake was gripping. I had heard a good deal about the mysterious make-up of the particular coaster with which my machine was equipped, but had had no experience. While I was working on the coaster the ruthless and relentless mosquitoes not only threatened to devour me, but proceeded to do it in a most hearty manner. They were worse that evening than I have ever experienced them. The little tormenters were in the thousands. Soon there was one in each eye, with half a dozen others roosting on my eyebrows, waiting their turn.

Loosening the cones did not release the brake altogether, for there was still a click every revolution of the wheel, so I concluded there was some internal trouble that would require the disassembling of the coaster—too big an undertaking in the dark.

There were fully eight miles between me and Sterling, and I did not feel inclined to walk it. Before it became dark I had not noticed any ranch houses, but now I could see, a mile to the right, a light which apparently shone from a house or camp of some sort, and I decided to make a bee line for this, in the dark no easy job. To start with, there did not seem to be a gate into the first field and it was necessary to drag the machine under the bottom wire. After this, I don't know how many irrigation ditches there were to cross, to say nothing of two more barb-wire fences to negotiate. (I am just a little diffident about saying just how I did get through some fences.) Finally I found myself in the back yard of a large ranch house—and a couple of dogs found me and they threatened to

join the mosquitoes in a man-eating expedition.

The fact that I approached the house from the back seemed to raise the suspicions of these trusty house dogs. They took not the least notice of the pretty names I called them. If no one came to the rescue pretty quick, it was evident that it would be necessary to change my tactics. If I started a fusillade with wrenches, I would most certainly lose those precious tools, besides ammunition would soon become exhausted. "What about the heavy foot pump?" the thought flashed through my mind. In a second I had it out of the clasp and letting the machine, which has so far acted as a protection, fall, I gave one of the enemy a crack on the side of the head that would cause him to have a toothache and neuralgia for at least a week or two. He went howling to the house, and henceforth kept at a safe distance, although, after one of the cowboys came out to see what was causing the disturbance, both the canines showed a strong desire to test the toughness of the calves of my legs. The cowboy said they would not bite, but I had heard that yarn before, and did not put away the pump until we got on the veranda. Trust in the Lord by all means, but it is just as well to carry your overcoat.

But I had a splendid evening at that ranch. You Easterners often speak of the Westerners as a lot of wild folk, who are both ignorant and insolent. As a matter of fact they are neither, and there is about them a kindness and a willingness to oblige that is foreign to the East. As for education, many of the younger ones are college bred. At the ranch where I found myself this evening there lay on the table the Literary Digest, the Commoner, and several of the high-class monthly magazines. Not all ignoramuses, apparently. Even the records of the phonograph spoke of a refined taste, not one of them was "cheap and nasty."

The coaster was beyond repair, and after "worrying round" until almost three o'clock in the afternoon, I decided to take out the braking parts. Fixed up in this way, I again headed south for the Queen City, where I knew another coaster could be obtained. That evening I stayed at a section house 20 miles from Sterling. From Sterling to Fort Morgan, lunch-stopping place for the next day, the roads were excellent, as most of the Colorado roads are—if you get on the right ones. But that is just where the trouble comes in.

"Follow the telephone lines," that is what a Fort Morgan fellow told me. I followed a telephone line all right—but the wrong one. It led to Duellie all right—but over what a road, if I must call it a road! Of that wretched fourteen miles I had to trundle the machine more than half, and when I did ride it was through a sea of sage brush and sand, amongst which there were not a few rattle snakes. On one little knoll where I left the track in disgust, I saw

three. The front wheel was almost on the tail of the first one before he saw me or I him. Like his friends that I "met" later in the afternoon, he kindly did all the quitting that was necessary. With a warning rattle he beat a retreat into a sage brush, and you can lay your life on it that I took a long detour around the spot where he disappeared. After this I kept my eyes open.

The danger from rattle snakes is greatly exaggerated. Out here in the West the people thing nothing of them, especially in districts where they abound. After I had seen several I began to feel brave, but I must admit, I always felt somewhat relieved when they started to head in the opposite direction. On some ranches rattle snakes are plentiful, on others they are never seen.

If I did not run much risk of being bitten by a snake, at one time it seemed as though I were in imminent danger of being tossed skywards by one of the ranch cattle. There were several hundred cows with calves, and one of these little creatures, too young to be afraid, claimed some relationship with me, or the machine, and

came cantering after us, calling to the best of its ability meanwhile. Its mother did not fall in with the idea, and seemed to hold me responsible. Bellowing and kicking up the sand, she galloped after her ungrateful offspring, and I began to think that my last day had come. She was all excitement. I could see the froth fly from her mouth as she galloped over the sage brush. There was no fence near, nor a telephone pole, round which I could have an exciting game of hide and seek. Riding was quite out of the question. Fortunately for me, however, the calf discovered, just in the nick of time, that it was a case of mistaken identity, and ran to meet its maddened mother, who even then stood and shook her head at me, as tho to say, "If you try any more of those eloping tricks, I'll fix you." Tired out with trundling and rough riding, I reached Duelle just before dark.

Between Duelle and Orchard I had first rate roads, but from Orchard to Hardin there is one long series of "sand draws." That ten miles took me four hours, and I might mention, not as an excuse for my own snail's pace, but to give the reader some idea of what this stretch of road is

like, that a Denver cyclist told me that he came over the same road a few days before and it took him five hours, with his light ordinary bicycle. It is certainly an infamous stretch of road.

The bright side of the shield showed, however, in the afternoon. Roads were perfect, country beautiful, and straight ahead I could see the snow capped peaks of the Rocky Mountains, which rested the eyes after the dust and heat of the Nebraska plains. One week spent under canvas in the Rockies, would more than repay one for the hard work of a cross-country ride, even if there were not a thousand and one other compensations. "The grand content of the mountains"—one feels it in the Rockies.

But I am not yet at Denver. This evening I spend at Plattville, arriving at the Queen City the next day, at noon, July 31. And here I am to make the long break in my so far exceedingly pleasant journey. I will have an opportunity to visit some of the far-famous mountain scenery of the tourist state of the Union, beautiful and inspiring Colorado.

STANLEY BOWMAR.

To Make Motors Run Smoothly.

A Swedish inventor is responsible for a small contrivance to be fitted to a gasoline engine to make the engine run smoothly when throttled down for slow running or standing still. A plug is inserted in the exhaust valve cap, the plug having a small valve in it. This valve is kept open by a spring, except on the firing stroke, when it closes by the action of the explosion after allowing a small amount of its force to escape. The effect may be described as taking the edge from an explosion. Exhaustive tests are said to have been made with the contrivance, it being fitted to a four-cylinder car and also on the engine of a three horsepower motor bicycle, both of which were made to creep along at a snail's pace without any perceptible jerking. At high speeds the arrangement is inoperative. It resembles an automatic inlet valve with the spring working in the opposite direction.

Some Suggestions About the Carburetter.

In the care of the pressure of fuel feed to the carburetter, the greatest attention should be paid to the working of the check valve to make sure that it neither leaks nor sticks. The strainer which at once protects it from accumulations of carbon and guards the contents of the fuel tank from inflammation should be kept clean at all times, and any deposits of carbon or oil on the check mechanism at once removed. In case of leaks in the system at any point, it is well to go over the entire system with a sponge full of soap suds, the pressure temporarily being raised considerably above its normal. In this way a bunch of fine bubbles will usually prove a good flag to

the danger point which is pretty certain to be located at one of the joints.

Officers for Roy Wheelmen.

The Roy Wheelmen of New York, at their annual meeting last night, elected the following officers for the ensuing year: President, F. L. Valiant; vice-president, Hubert T. Mayo; treasurer, Jean Roy; recording secretary, Ralph Roullier; financial secretary, George Schmoll; captain, Arthur E. Rhodes; sergeant-at-arms, Charles Schlosser; first bugler, Gaston Girard; second bugler, Benjamin Ruggerio; trustees—Mayo, Roy, Schmoll, Valiant, Roullier, Schlosser and Rhodes; racing board—Henri Larcheveque, Charles Nerent, John Roth, Roullier, Mayo, Schmoll and Valiant.

May Question Them as "Amateurs."

There will likely be a sensation sprung after the annual meeting of the National Cycling Association next month, when about a score of amateurs are expected to be asked to throw in their lot with the professionals. It is whispered that the N. C. A. has collected strong evidence against about nineteen riders, including several members of the Cork Pullers Club of Brooklyn, who, it is understood, held a race meet at Valley Stream, L. I., with cash pools as the prizes. Although this information is unofficial, several of the officials of the governing body would not deny the fact when questioned this week.

"The A B C of Electricity" will aid you in understanding many things about motors that may now seem hard of understanding. Price, 50 cents. The Bicycling World Co., 154 Nassau Street, New York City. ***

Chicago's Club Elects Officers.

At the annual election of the Chicago Motorcycle Club held last week the following workers were elected for the ensuing year: President, S. W. Farhney; vice-president, Grant W. Hunter; recording secretary, C. H. Lamb; financial secretary, C. W. Keller; captain, W. L. Johnson; directors to act in connection with the president and vice-president, Frank Haungs, A. J. McCollum, J. A. Turner. There will be considerable improvement made for the club's accommodations in the near future. Three large rooms will be remodeled and furnished for the club's benefit, also a garage for storing motorcycles.

Corbin's Remembrance to the Trade.

An ornate, gold-finished watch fob, incorporating the Corbin big "C" and a reproduction of their coaster brake, is being issued by the Corbin Screw Corporation of New Britain, Conn., to their friends in the trade. The fob, with its black leather strap and gold buckle, is very handsome in appearance and may well be prized by those receiving it. It is suggested that those in the trade who think they may be overlooked, should write.

Popular Price Speed Indicator.

The Prospect Motor Mfg. Co., Brooklyn, N. Y., is making ready to place on the market the Simplex speed indicator, an instrument specially designed for motorcycle use. It will operate by a friction wheel in contact with the front tire and will be applicable to wheels of all diameters. The dial will register from 1 to 42 miles per hour and what is of particular interest, the device will be listed at a popular price—\$5.

The Great Six-day Race at Madison
Square Garden is Over.

JOE FOGLER and EDDIE ROOT
won the same on

IVER JOHNSON

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THEY LED. OTHERS FOLLOWED.

The rigidity of our Truss Frame helped them to win.

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TOLEDO, OHIO

TYPES OF THE OLDEN DAYS

Paris Gathers an Historical Exhibition of Velocipedes and Bicycles Showing Evolution of the Modern Machine.

Paris, Dec. 20, 1906—While the "Salon de l'Automobile et du Cycle" contains many novel and remarkable features, there can be little doubt that the most curious of all is the "Retrospective Exhibition of Velocipedes." All around the circular gallery of the Avenue d'Antin dome of the Grand Palais on the Champs Elysees is arranged the most complete collection of old bicycles ever presented to the public. Here are to be seen types representing the entire history of the bicycle plainly defined and clearly explained by a series of instructive placards, each of the fifty or sixty exhibits being numbered, dated and described. Many of the devices shown are so curious in the light of modern construction as to seem rather fictitious reproductions than actual products of serious men, yet they are all authentic, and all were taken more or less in earnest in their time. They are too numerous, in fact for accurate description, but a brief review of the leading models will at least reveal something of the natural interest which attaches to the exhibit, and may serve to outline something of the history which they so well illustrate.

Passing over half a dozen old "draisiennes" or wooden hobby horses (1818-1845), the first velocipede is No. 8, lent by the town of Bar-le-Duc, made by Pierre Michaux in 1864. Michaux was a native of the little town in question, but was working at Paris as a wheelwright or coach-smith when the idea occurred to him of fitting a pair of cranked driving pedals to the front wheel of one of the old hobby horses. A monument raised to his memory at Bar-le-Duc by "the cyclists of France" bears a representation of the wooden "bone-shaker" thus produced, and couples with his name that of his son Ernest as the "inventors of the pedalled velocipede." The date of the invention is given on the cards at the show as 1855. This is possible, but very doubtful; at any rate, it was not until ten years later that the bicycle trade was really founded by his family. Near this relic is an 1866 Michaux bicycle; No. 11 is a curious old tricycle by the same maker. No. 12, a "boneshaker" by Poncet, it fitted with the famous "leg" which served to hold the machine upright while the rider mounted; No. 13 is a child's wheel. All these date from 1866, as does also the "Poulet" wheel marked No. 14. This latter is remarkable as one of the only three bicycles which figured at the Paris International Exhibition of 1867; a handsome, well-finished machine, turned out by an ex-coach-builder whose widow is still in business in Paris as a bicycle manufacturer and repairer, and

the only survivor of the original firms of 1860-70.

It was these machines, shown at the 1867 exhibition, and the reports of the numerous English visitors drawn to Paris by the great World's Fair, which attracted the attention of the British manufacturer to the possibilities of wheeling, and laid the foundation of what, five or ten years later, developed into an important national industry. In Paris, the notice of intelligent men, especially engineering students, had already been drawn to the subject.

But to return to the old-timers, No. 15, an exhibit lent by the Conservatoire des Arts and Metiers—the Patent Museum of Paris—has a hollow frame and rubber tires. The



NEW YORK BRANCH: 214-216 WEST 47TH ST.

wheels are of wood. It was made in 1867 by Mr. Ader, who took out a patent in 1868 for various improvements. No. 15 is remarkable as showing that the bicycle with a chain-driven rear wheel already existed in 1868; there may be some question as to the authenticity of the date. This machine was made by Mayer & Co. from the designs of Andre Guilmet, a clock-maker. Its close resemblance to the Coventry "bicyclette" of 1880 is illustrated by an annexed engraving. It is certain that at this period the idea of chain driving had already been discussed in Paris. Patents were taken out in 1868 by Charles Sargent, who died in Paris a year or two later, for a chain-driven bicycle, but this was a "front driver" built on what was afterwards known as the "kangaroo" principle. It is also well known that the Rudge "bicyclette"—a dwarf rear driver of the British "Rover" type, was invented in England in 1879, but so poorly received that it was only pushed seven or eight years later. In No. 18 is found a machine by the "Compagnie Parisienne," the first real bicycle factory, started by the Michaux and the Olliviers, and turn-

ing out its 200 velocipedes weekly. This specimen, lent by the French Touring Club, has iron rims and rubber tires and dates from 1869. No. 20 bears the same date, and marks another step in the evolution of the modern wheel. Ball bearings were first applied to velocipedes by M. Suriray of Paris, and this machine, lent by him, is one of his original machines.

At this point the exhibition of purely French styles terminates. From 1866 to 1870, France led the bicycle trade, but the Franco-German war was a death blow to the infant industry, which henceforth found its real center at Coventry, whence it spread the world over. This, of course, accounts for the very general but erroneous impression that Coventry was the actual birthplace of the bicycle; and also for the fact that in this French show a gap of nearly ten years now occurs. Thus No. 22 takes us forward to 1879 when the "spider" was the popular wheel. It is curious to note that the first hollow forks were made of the sheaths of cavalry sabres—in fact, the French term "fourreau," or sheath, is still used in the bicycle trade here. The Otto, the Rotary tricycle, the Xtraordinary lever-pedalled bicycle, the Kangaroo, the spring frame rear-driver, the Humber tandem, the Crypto, Swift, Whippet, Rudge, Clement and other wheels of the eighties and nineties are too familiar to need description here, but are all duly represented. The idea of a racing machine in which the rider could use hand levers as well as pedals to increase his pace is illustrated by the "Valere" patterns of this epoch, the extraordinary tricycle of 1879 which was driven by the rider's weight, the seat having a see-saw movement. The Aras and Metiers Museum presents another curious idea—the application of Watts' "planetary" rotative movement to a bicycle made by Rouart in 1895, while the 1894 "Magnant" wheel, with two chains, is one of the earliest examples of two-speed gear.

This original and interesting exhibition attracts much notice and comment. There are, of course, some regrettable gaps. One would like to see Sargent's 1868 front driver or some of the first English machines (1868-79); and above all, a velocipede by Lallemant, who first carried the idea from Paris to the United States, and disputes Michaux's generally-admitted claim to the invention of the pedal. But such as it is, the show is unique and the pity of it is that in three weeks the collection will again be scattered to the four winds.

Cyclists who make it a practice to follow close behind horse-drawn vehicles on the road, cannot have failed to encounter the peril which arises from the careless use of the lash whip by some drivers. When swinging it, the end of the lash is very apt to be drawn back of the vehicle, and if the cyclist is near enough, he may receive a stinging, though unintentional, cut across the face.

A Christmas Victory for Butler.

Nat Butler trounced Thaddeus Robl and H. Ryser in a sixty kilometre paced race at Paris, on Christmas Day. The fight between Butler and Robl was superb until near the finish, when the American lapped Robl and although the German came back strong he was not able to overcome the "old man's" lead. Butler won out by 11-3 laps in 49:27½. Ryser was the "dog" of the race, finishing 25 laps back of Butler. Otto Meyer won the Christmas sprint race from Ellegaard by one wheel, Martin crossing third. Poulain finished last and Vanden Born quit. One of the features of the meet was a sprint between the "has beens," or as the French term them, the "joyous Parisian professional pedallers." Darragon won from Heurtevin, a pacemaker, by three lengths, who in turn beat Peguy, Nat Butler's pacemaker, by one length. Dussot, the pace follower, was fourth.

Use Something to Soften the Blows.

When it is desired to straighten a bent crank or other solid piece which is finished or polished on the outside, unless the proper tools are at hand, the safest method is to wrap the part tightly in a cloth letting several folds overlap each other, and then to strike gently but firmly with a hammer on the highest part, as it lies on a smooth and level surface. Of course the correct tool for the purpose is the soft-faced bab-

bit or copper hammer, but when this is not to be had, muffling the affected part carefully, will give almost as good results.

Maybe It Needs Oil.

Occasionally the apparently inexplicable weakness of a bicycle motor may be traceable to the fact that it is being starved of oil, the result being not simply a greater coefficient of friction between the piston and the walls than is normal, but a decided loss of compression owing to the loss of the thin film which usually acts as a seal between the opposite ends of the piston.

How to Fix the Grips.

It is easier to wrap a few turns of tire tape around the end of the handlebar and then smear it with cement or shellac and twist the grip firmly in place, than it is to keep shoving it on every few moments and having it turn under the hand. Loose handle bar grips like loose teeth, are not to be tolerated. There is danger in loose grips since in an emergency they may cause one to lose steady control.

High Speed on the Boards.

At the rate of sixty-four miles an hour on a five-lap indoor track! That is going "some." This rate of speed was made on the Velodrome d'Hiver, in Paris, Sunday, 23rd ult., when Anzani broke Cissac's record of 58 seconds for the mile. The Italian covered the distance in 56⅔ seconds.

Metals for Ignition Contacts.

A well known motor bicyclist who is of an investigating turn of mind, has been looking into the matter of contact metals for the circuit breaker, and finds that pure iridium furnishes even better results than the more common iridium and platinum alloy. A thirty per cent. iridium alloy he found to be of little value, while increasing the percentage up to sixty or seventy, brought little advantage, and effected no saving in cost. The pure metal, however, in addition to serving the purpose well, costs but a trifle less than the pure platinum. It possesses this disadvantage, however, that it is so very hard and crystalline in its nature that it requires a special form of treatment in order to mount it properly in the contact blade.

The Eastern Division of the Century Road Club Association will give its annual "masquerade and civic" ball on the evening of January 15th. Lyric Hall, Sixth avenue, between Forty-first and Forty-second streets, New York City, will be the place where the cyclists will begin to get their leg muscles in shape for the spring season.

The Theim Mfg. Co., Minneapolis, Minn., who for many years have made cycle specialties and latterly have produced a bicycle motor under contract, are making ready to market a motor bicycle of their own. It will bear the name Theim.

BRING YOUR PERSONS ROYAL MOTOR SEATS UP TO DATE



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WILL ENABLE YOU TO DO SO

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THE BICYCLING WORLD and MOTORCYCLE REVIEW

FOUNDED 1877

Volume LIV.

New York, U. S. A., Saturday, January 12, 1907

No. 16

SHORTAGE OF TIRE FABRIC

Material Hard to Obtain Even at High Prices—Cotton Growers Seek to Control Future Prices.

If there are any tire manufacturers who failed definitely to provide for a sufficient supply of fabric, they are likely to experience a very embarrassing state of affairs. For there is precious little of the higher grade fabrics now obtainable for either love or money.

The price of Sea Island cotton, the most desirable fabric, has soared almost sky-high and even at the steep cost, it is almost impossible to obtain any of the staple. The quotations on Egyptian combings, also, the best substitute for Sea Island, has advanced by leaps and bounds and as the available supply practically has been cornered or bought up, the tire manufacturer who failed to guard against such a situation is in no enviable position. As one tire man laughingly expressed it, sail cloth is about the only fabric available.

The conditions are such that cheap tires must become cheaper—in respect to quality—and more hazardous than ever before. "Taking chances" with them to save a few dollars is certain to prove penny wisdom of the most expensive and discomfiting sort.

Bearing on this subject of tire fabrics it is worthy of remark that at their annual meeting which occurred this week, the Association of Sea Island Cotton Growers of Georgia and Florida resolved to form a million dollar corporation to buy and hold Sea Island cotton and thus regulate its price.

Ericson Steps Down and Out.

C. E. Ericson, general manager of the Aurora Automatic Machinery Co., makers of Thor motors and accessories, will sever his connection with that concern on the 15th inst. Nominally he is resigning his

office but according to reports from those in position to know, his decision to do so grew out of a rather torrid meeting of the directors at which certain recommendations were proposed. Ericson declared that if they were adopted he would resign. Their adoption promptly followed. Mr. Ericson, like some others affiliated with the Aurora company, had not very cordially endeared himself to very many of those with whom he had dealings and between them the item of good will never has been permitted to attain over-generous proportions. Ericson's successor has not been selected and for the time being at least his duties will be performed by three department heads, Messrs. Felp, Ottoway and Rheutan.

Work Becomes Goodrich President.

B. G. Work has been formally elected president of the B. F. Goodrich Co., Akron, Ohio, although as a matter of fact, he really has been the guiding hand of the big Goodrich institution for a number of years. His accession to the office and title of president was made possible by the resignation of Col. George T. Perkins, who retired because of ill health.

Nobles Makes a Change of Tires.

Elon B. Nobles, formerly associated with the Fisk Rubber Co.'s Boston branch, has been appointed manager of the G & J Tire Co.'s establishment in that city. He succeeds H. L. Johnson, who resigned on the 1st inst. Nobles is now at the G & J factory in Indianapolis familiarizing himself with products and processes.

Long Trip to Hurry Shipments.

In order to hurry shipments of F. N. four-cylinder motorcycles, E. L. Ovington, of the Ovington Motor Co., has booked passage for February 1st, and will pay his respects to the factory folk in Belgium. He says he will be a mightily disappointed man if he does not bring back 500 machines on the same steamer on which he returns.

LOOKING TOWARD THE LADIES

Stevens, True to Them, Finds Their Cycling Wants Basis of Unexpected Volume of Business.

To learn that not only is the use of bicycles by women sufficiently great to induce one man in the cycle trade to make a specialty of dress-guards and lacings for their bicycles, may cause some of the wise ones to lift their eyebrows a bit. L. B. Stevens, whose establishment is at 35 Warrent street, New York, is, however, the man who does that very thing and who thus has reason to know that women still have a healthy interest in cycling, despite the too general notion to the contrary that prevails, particularly in the larger cities, where both people and newspapers are too prone to make sweeping conclusions from observation in their own localities.

"If my orders are a fair criterion—and they would seem to be—the interest of womankind not only has not diminished to anything like the extent commonly supposed, but it is showing distinct symptoms of increasing," said Mr. Stevens, when the subject was broached to him. "The demand for dress-guards for next season's use is larger than last year, which can indicate but one thing," he continued.

"The Pacific Coast is responsible for the biggest increase in orders. Here, for instance, is a San Francisco jobber's order for 1,500 pairs of dress-guards. But the demand from New England, the Middle West and, in fact, from the rest of the country all indicate that at least one-third more women are now riding or will ride bicycles than rode a year ago.

"The demand from Canada, also, shows a significant increase and in spite of the raise in prices, due to a 20 per cent. advance in material and 10 per cent in labor, the export trade on fittings for women's bicycles still about holds its own. Japan is a good cus-

tomers, South America is improving, and Germany and Denmark are steady buyers of stuff for my goods.

"Most of the bicycle manufacturers seem to have felt the enlarged demand, as their orders for next year are running much stronger. They seem to want the high-priced goods, too, which leads to the belief that this coming season will see an increased call for women's bicycles, which will be for new, high-grade mounts, of course."

The Passage of the Bensons.

D. F. and J. C. Benson are no longer doing business in Carthage, Mo. They arrived there and opened a bicycle and repair shop some two months ago, but business apparently was not as brisk as their expectations had pictured, so without taking Carthage into their confidence, they traded their stock of goods for an automobile and treated themselves to a trip out of town. Carthage got interested when they did not come back, and the local paper gave them a free "write-up," dealing with their unceremonious departure. Such few but surprised creditors as they left do not seem to feel that they owed enough to account for their disappearance, and therefore suspect some element of mystery.

Bowmar Becomes a "Drummer."

Stanley Bowmar, the cross-continent motorcyclist whose uncommonly interesting story of his long journey is appearing in the *Bicycling World*, is now covering the State of California and appointing agents in the interests of the Merkel Motor Co. He is, however, using the new three horsepower machine which the Merkel people just have placed on the market. When his present task is completed Bowmar will return to his New Zealand home.

Smith Goes Up in Diamonds.

O. S. Tweedy, manager of the Diamond Rubber Co.'s Chicago branch, having resigned that office to engage in other business, C. H. Smith has been appointed to fill the vacancy. The appointment is in the nature of promotion, Smith previously having been Tweedy's lieutenant.

Mason Goes to Hartford.

Elliott Mason, for a quarter of a century the manager of the Pope Mfg. Co.'s branch in New York, who was left high and dry when the automobile establishment was recently disposed of, is again in Pope harness. He is now connected with the headquarters in Hartford.

The Retail Record.

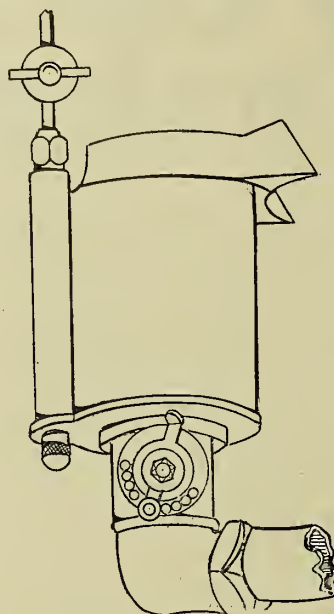
Catskill, N. Y.—Nelson Mattice, sold out to Theodore Wynkoop.

Newark, O.—Applegate Bros., new store at 17 North Fourth street.

CHANGES IN CARBURETTERS

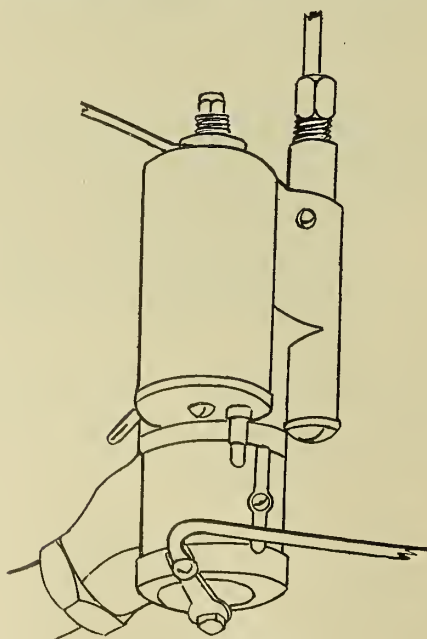
Two of the Newly Developed Devices and Their Principles That Increase Power and Flexibility.

Improvement in carburetters, which constitute one of the pronounced features of the 1907 motorcycles, have brought at least two radical departures from the designs



INDIAN CARBURETTER

previously employed on the machines to which they are applied—the Indian and the R-S, both of which are here illustrated. Both of the devices are smaller than those for which they have been substituted and the principles employed promise a greater



R-S CARBURETTER

degree of flexibility, that it, ease and gentleness in starting and in making changes of speed and in running at slow speed.

In the Indian carburettor these results are effected by a diaphragm which is automatically regulated by the suction of the engine. At high speed, the great suction created causes the diaphragm to open wide and gives the fullest measure of gas; as the speed is reduced the diaphragm closes correspondingly and reduces the quantity of the mixture.

In the R-S a twin float and central draft is employed, the two floats being made necessary by the use of the mechanical valves of the engine. Each float is held perfectly level uphill and down by small rods by which they are held true at all times. The power contributed by the throttle is regulated by a cone shaped tube which is raised as the throttle is opened thus increasing the air supply; there is an auxiliary air throttle also which when opened admits cold air and acts as an additional accelerator.

The Lady and the Tandem.

As the first motor tandem having a drop front frame for ladies' use, it is natural that the R-S machine should arouse considerable attention and give rise to some interesting correspondence. Some of the women folk realize that as it eliminates the man-killing strenuousness entailed by the leg-propelled double, their better halves no longer have any excuse for solitary indulgence in the pastime of motorcycling. That this is true, is evidenced by the following communication which was recently forwarded to the Reading Standard Cycle Mfg. Co.:

"I have used a motorcycle all of last season and as a result my wife threatened me with a divorce on the grounds of neglect, although she acknowledged that the motorcycle kept me in better health and humor than ever before, for they are without doubt nerve pacifiers when you once get acquainted with them. I was endeavoring to induce her to consider a tandem attachment, but she could not picture herself straddling the rear wheel and the roads here are scarcely adapted to the use of three-wheelers. On receiving the New York Show Number of the *Bicycling World*, we became at once interested, in fact, she became as much enthused as I did, when I considered purchasing my next year's mount and now as I have found a purchaser for my motor bicycle, I desire to be one of the first to own a motor tandem. Kindly state when deliveries can be made."

Kelly Adds Another Bar.

To their well known and established line of adjustable handle bars, the Kelly Handle Bar Co., Cleveland, Ohio, has added a reversible bar styled the Kelly No. 7. By simply loosening the clamp screw the bar may be changed from a forward extension drop bar to an upturned bar, for touring at any other angle the rider may choose to make it. This addition to the Kelly line makes it as complete as could be desired.

THE RISE OF THE EMBLEM

Inspiring Instance of the Faith That Built
a Factory and a Business During
Cycling's Darkest Days.

"Great oaks from little acorns grow" is an old truism which carries its own moral, and about which there is nothing particularly unusual. When the acorn is dropped, however, in soil that is thought to have been exhausted, and where the majority of oaks round about it have withered and fallen, and that particular acorn grows lusty and strong, defying the handicap of soil and wind and storm, then there is an element of the unusual about it and one

road, he established a factory in about the only brick building in the place, the top floor of which—by the way—was the lodge room of the local branch of a secret society. In the lower floors and basement, Schack made his bicycles—good bicycles they proved to be, too; and last year, from this wholly inadequate plant, he turned out the astonishing total of 15,000 machines.

His next step was even more remarkable, and thoroughly characteristic of the man.

Be it said here, in order to more fully explain the situation, that the town is growing up almost entirely around the Emblem Mfg. Co., Schack taking the farmer boys for miles around, educating them in the business, making those of them that show aptitude for the work foremen and heads of departments, and finally giving

practically little or no cessation of work.

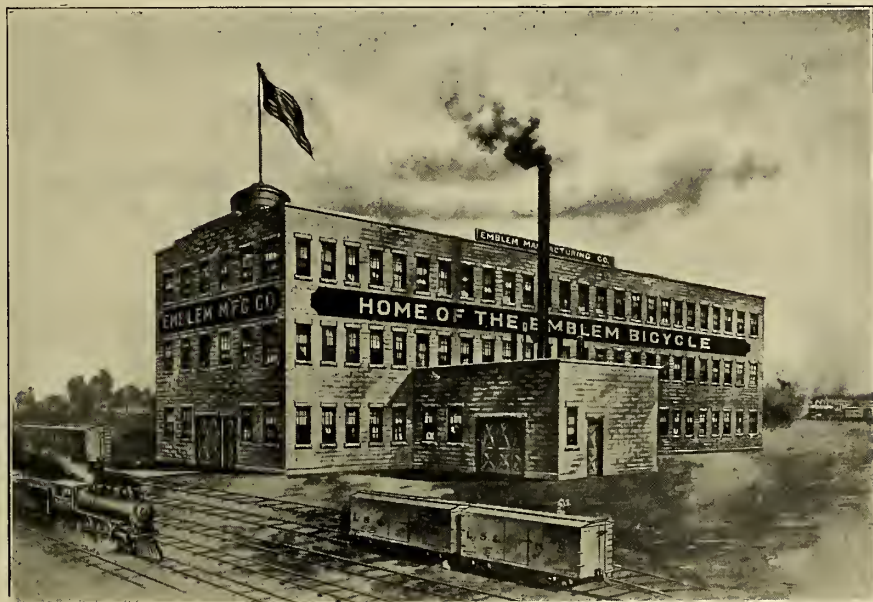
And Schack not only presided over it all, and was its guiding spirit, but he superintended every detail in the odd moments when he was not buying every bit of material used in the factory, running the business and selling an output of more than 15,000 bicycles.

The accompanying photograph will give a fair idea of how the plant now looks. It properly may be called a monument to perseverance and concentration on one particular object; and as an illustration of the claim that a man can do almost anything, or get most anywhere, if he sets out to do it and keeps that idea ever first and foremost. W. G. Schack set out to be a bicycle manufacturer in the face of what to most other men would have meant insurmountable obstacles and difficulties. He has built the only bicycle factory erected in America during a period of ten years and from the small and questioned beginning has placed his credit in the gilt-edged class.

Concerning Saddles, Old and New.

"One thing the rider of experience never does, he never parts with the old saddle, so long as it hangs together at all," observes a contributor to *Cycling*. "Machines may come and machines may go, but the saddle always remains. One cannot afford the time and the discomfort necessary for 'breaking in' a new saddle every year, nor is there any reason for doing so unless one is making an experimental search for a more comfortable pattern. I have changed my machines regularly every year for quite a long time, but I cannot remember when I had a new saddle. All I know is that both of my old B10's have reached the limit of their capacity for adjustment with periodical tightening, and will require a re-setting of the leather in the course of a month or two. But an old saddle that is really comfortable is a treasure money cannot buy, nor fair words persuade one to part with.

"And here I would venture a suggestion to the prospective purchaser of a new machine, especially if he is of that numerous class who are always searching after the ideal saddle, and never finding it. My advice is to get one of ample size. I believe that a large proportion of saddle troubles arose from nothing else than the use of a diminutive triangle of leather which is only fit for a schoolboy or a racing man. A cyclist who possesses the generous proportions and the breadth of beam of a Dutch burgomaster cannot expect to find comfort on a saddle of inadequate size. My personal notion is that the average light road saddle is too small even for the average rider, and I think that the extra inch or two of seating room in the larger sizes compensates abundantly for the few extra ounces of weight and makes for real comfort in a higher degree than any ingenious distribution of pads or fantastic formation of springs.



that attracts attention coupled with admiration.

The simile may be applied to the Emblem Mfg. Co., of Angola, N. Y., practically the life work of W. G. Schack. Except for a short period, Schack has been in the bicycle business since 1879, first as a small, very small dealer, gradually expanding, ever watchful and slowly and painstakingly taking advantage of every opportunity that came within his reach—and reaching out for others. His sticktoitiveness has been nothing short of remarkable. All during the dark days and lean years of '97, '98, '99 and more, Schack trimmed his sails, but never altered his course, and finally, when nearly everyone else thought that the bicycle business was a little more than a shadow of the past, Schack was discovered making bicycles, and while his judgment was flouted and his credit questioned, he calmly pursued the even tenor of his way, paying his bills when they were due, selling his product whenever he could. And Schack sold it, and sold more of it each succeeding year.

In the little town of Angola, twenty odd miles from Buffalo on the Lake Shore rail-

road, he established a factory in about the only brick building in the place, the top floor of which—by the way—was the lodge room of the local branch of a secret society. In the lower floors and basement, Schack made his bicycles—good bicycles they proved to be, too; and last year, from this wholly inadequate plant, he turned out the astonishing total of 15,000 machines.

It was this class of men that Schack set to work to build a substantial modern factory of concrete construction in between while bicycles were being built. The same men who build bicycles drew the plans and dug the foundation of the building and then started the difficult and technical work of erecting the plant by a process thought to be understood by but few concerns in this country; but they did it, and did it well. They did more, too. They installed the plumbing and lighting, the boilers and engine, and electric lighting plant and telephone system, and when all was completed they moved the machinery and tools with

The Dealers Who Pinned their Faith to National Bicycles

in 1906

were the men who did business on

"THE SUNNY SIDE OF EASY STREET"

They had the bicycles with which to quickly answer the "Show me" demand—the bicycles that are not like the common run of bicycles—the bicycles that have individuality and talking points (which are merit points also) and which when sold stay sold and sell others.

**If Your Business Needs a Tonic, Why
Not Try the National Agency for 1907?**

NATIONAL CYCLE MANUFACTURING COMPANY
BAY CITY, MICH., U. S. A.

Our line of Bicycle Tire grades cannot fail to interest any live dealer or intelligent buyer on account of its completeness, its quality, and its prices.

Write our Branch House nearest located to you for quotations and any further particulars required.

"FISK EXPORT"

"FISK No. 66 E. H."

"FISK No. 88 H."

"FISK No. 66"

"FISK PREMIER CACTUS"

"FISK PREMIER"

"FISK NEW DEPARTURE"

"FISK MASSASOIT"

"FISK VICTOR"

"FISK PREMIER JUVENILE"

"FISK MOTOR CYCLE"

(The above words—to the wise—should be sufficient.)

THE FISK RUBBER CO., Chicopee Falls, Mass.

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NEW YORK, JANUARY 12, 1907

To Serve the Sport.

It is good news that the National Cycling Association is making ready to assume control of road racing. Once the finest and fairest and most popular form of cycling sport it has sadly "run down at the heel." Lacking a governing hand, it has become the refuge of the dishonorable if not the dishonest sportsman and the foul riders both of whom apparently have recognized that there is no other sport in which they are so free to practice their tricks without fear of punishment. Acts have been committed that if committed elsewhere would have placed the offenders outside the pale of sportsmen. "Win any way" has been the ruling spirit. When that spirit is rampant the honorable man has no chance.

There always will be men to whom government of any sort is repugnant. Anarchists are of the class. They wish to follow the dictates of their own fancies without regard to their fellow men. There are men of the sort identified with cycling sport and it is certain that the knowledge that the N. C. A. is about to step in and grasp a loose rein will fill their souls with woe and their mouths with strong language. But the step will prove a good thing for the

sport and a good thing for the N. C. A. As the Bicycling World has so often contended, it should have been taken long ago. It is a move in the direction of clean sport. The honorable rider will welcome it. The other sort will set up a howl that will deceive none but themselves.

At its annual meeting the N. C. A., if it will, can make itself useful and serve cycling another good turn by doing that which will encourage the rising generation, toward which most of the astute governors of sport are now devoting so much attention. The establishment of a Junior championship, or a Public School championship, or both, will be in the nature of serving that purpose. The idea is an attractive one and merits consideration. The youngsters are nothing if not enthusiasts and enthusiasm is a mighty force for good.

The Matter of Magnetos.

While undoubtedly the use of the magneto for ignition purposes will be extended and popularized with time, it would be too much to expect the average rider to accept it as the "last word" in ignition matters, simply on the recommendation of a handful of expert riders who have tried it and found it not wanting in satisfactory qualities, or merely on the strength of the fact that it has gained greater popularity in European service than here. It is one thing to demonstrate the possibilities of a device under the skillful tutelage of an expert who thoroughly understands its workings, and quite another to convince the witnesses of its valorous behavior, that it is not responding to a highly developed skill on the part of the demonstrator. In other words, what the magneto will do, is in no wise a matter of doubt. What the magneto will do for the average rider who has neither time nor inclination to delve into the apparent mysteries which its casing and magnet conceal, requires more than a few lines of publicity to show, more than the result of one or two successful tours to prove.

After the most careful explanation of its theory and operation, after its working has been shown in a practical way and every conceivable question as to its construction and maintenance has been answered in full, the average non-technical man—the sort of man who really longs for something as reliable as that appears to be—turns away with a shake of the head, and asks some question in a general way like that which

first identified Mark Twain with the automobile. A friend had been explaining his new car to him. After a half-hour's discussion of the vital principles involved in its mechanism, Twain interrupted his friend with the question: "What makes the wheels go round?" Again he listened attentively and comprehendingly for a time until the ardent motorist stood back, moist-eyed and enthusiastic, with a smile of simple joy overspreading his features. "Yes," said his distinguished auditor, "yes, I think I understand all that—but what makes the front wheels go round?"

In plain words, the average motorcyclist is accustomed to dealing only with the essentially concrete in life. He may follow a demonstration which takes him into lofty theory, and understand all that is said, for the time being. After it is all over, he begins to wonder again, "What makes the wheels go round." The latent energy of the magnetic field is too abstruse for him to understand. It is intangible according to the standards of the things with which he is most familiar. He may be and doubtless is, charmed with the elegant simplicity of the magneto and the fine results which it produces at the hands of one who understands its workings. But because its principles are not thoroughly clear to him, he begins to doubt whether it would work as well for him. To overcome this natural distrust of anything which introduces an apparently novel principle, particularly when it is costly, it is necessary to show conclusively that its reliability is inherent and not due to the skill of the rider. This proof, like that which was required to establish confidence in the internal combustion motor, must come only with time and persistent endeavor on the part of those who are championing its cause. Once the rider gets accustomed to the novel sensation of sitting over so large an amount of condensed energy as the motor, he no longer doubts it in the same way he did at first. He forgets that it "might explode." So with the magneto, once divorced from the idea that it is compounded of magic, its use will keep pace with its actual worth. Incidentally, the discussion which the present attempt to popularize it on American soil is engendering, is likely to provide not a little popular enlightenment on a most absorbing and none too well understood subject, namely, that of ignition. It will have its effect and another year undoubtedly will see many more magnetos in use.

ABOUT WORKING THE ANKLES MORE

Theoretical Side of Ankling Carefully Figured Out by an Engineer to Prove Its Great Advantages.

One of those venerable problems which the cycling fraternity never seems to have satisfactorily settled, is that of the effectiveness of "ankling," not so much with regard to its apparent benefit or otherwise to the rider, but as to the theoretical advantage which may be gained by carrying

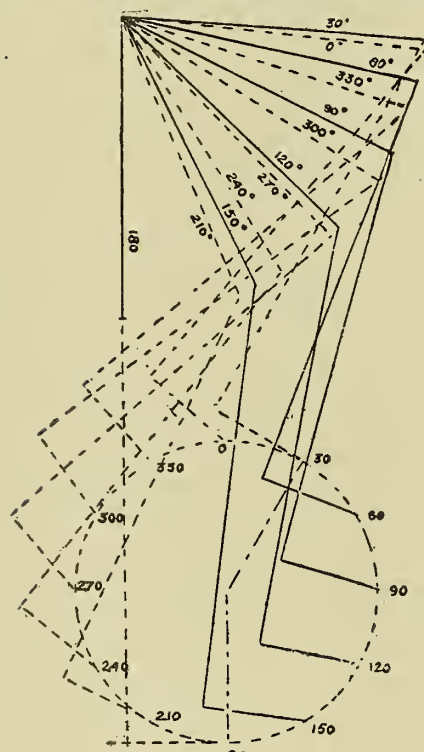


Fig. I
Non Ankler.

Effective from 30°-180°=150° Scale $\frac{1}{8}$.

the leverage of the foot and leg throughout the cycle of travel by the pedal. This naturally enough, partakes of two distinct elements, namely the advantage, or otherwise, to be gained from the mechanical standpoint, considering the leg of the rider merely as a system of levers working in unison with the pedal, and, second, the benefit or injury which is gained by altering the play of the muscles. This, of course, introduces the question of fatigue, and in its last analysis depends not a little upon the constitutionality of the rider. One British engineer, who has been studying the subject not a little, has developed the theory of the mechanical side in a very complete manner. As a starting point, he measured the angular deflection of the foot between extreme positions, finding that he could bend his own member upward 40° and downward 35°, from the normal position with the plane of the sole at right angles to the shin bone. He then delved deep into the subject and says:

"As the bent position of the leg at the upper part of the revolution of the pedals rather complicates the problem, I only take the case of the lower part, where one can practically assume that the leg (lower part) is vertical, and I take two cases (1) ankling angle at 35° for an ankler, and (2) ankling angle = 0° for a non-ankler. Now the resistance is tangential to the circle at every point and constant, and the pressure exerted on the pedal may be taken as at right angles to the sole of the foot, i. e., to the ankling angle, therefore the difference of angle between the pressure and the resistance = the difference in angle between the position of the crank and the plane of the sole of the foot (= 90° minus the ankling angle), because these two latter are respectively perpendicular to the two former, and, resolving the pressure along the line of the resistance, the secant of the angle between them gives the proportion the pressure must bear to the resistance in order to balance it. Now the position of crank (1" measured on the arc, as shown in figure) gives an angle whose circular measure = $1\frac{1}{7}\frac{1}{2}$, and the angle whose circular measure is 1 is 57° 17' 45". The angular position of the crank with reference to the

vertical is therefore $\frac{57^\circ 17' 45''}{7\frac{1}{2}} = 7^\circ 38' 22''$,

and the differences of angles and the values of their secants in the two cases quoted above are

Difference of angle	Secant
(1) = 47° 21' 38"	= 1.4763
(2) = 82° 21' 38"	= 7.522

"Thus, if you ankle you have to exert at this given point, in order to balance the resistance, about half as much pressure again as the constant tangential resistance, and if you don't ankle, $7\frac{1}{2}$ times as much. Does this not show that the efficacy is something more than 'apparent'? To my mind, 'ankling' means simply keeping the sole of your foot, as nearly as the suppleness of your ankle will allow, parallel to the crank, because the pressure you exert is at right angles to the sole of the foot, and consequently the nearer it is acting at right angles to the crank the more effective pressure you can exert. As sometimes a graphic representation is more easily grasped than description and calculations, I enclose two figures to scale of the positions of the feet and legs at every 30° of the circle, Fig. 1 of a rigid non-ankler, and Fig. 2 of an ankler whose ankle is 40° upwards and 35° downwards. Length of upper leg joint 15", lower 21", ankle to ball of foot 5". For greater clearness I have shown the foot and leg in firm lines where they can exert a propelling force, and dotted where they cannot, and the angle of efficacy, or angle through which propelling pressure can be exerted, by chain dotted lines.

"From examination of these figures it will be seen (1) that with ankling, each foot is effective through about 210°, and without

ankling only through 150°. (2) That owing to the bending of the leg and its consequently inclined position, ankling gives no propelling effect at the upper portion of the circle till after passing the vertical line. (3) That it is incorrect to assume that the 'line of dead point' is a diameter of the circle. (4) That ankling saves bending the knee considerably. (5) That, when ankling, after passing the lowest point of the circle, the foot is still exerting a propelling force for about 45°, although the knee is rising.

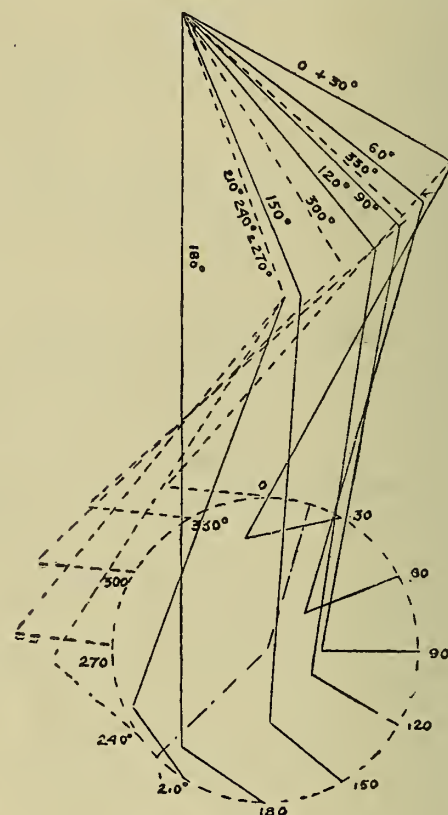


Fig. II
Ankler.

Effective from 15°-225° = 210°. Scale $\frac{1}{8}$.

"I have assumed the vertical to be parallel to the leg when fully stretched out, for simplicity of description; whether this is vertical or more or less inclined depends on the position of the saddle, but does not affect the relative positions of the leg and foot."

Loose Ends Sign of Trouble.

It is a mark of a good machine not to have any "loose ends" hanging anywhere about the machine. Besides being slipshod, the practice indicates a certain amount of neglect on the part of the rider, and usually is a pretty fair sign that something in the line of a breakdown is going to happen sooner or later. In particular the condition of the ends of the electrical connections should be kept good. Ragged wires besides being unsightly, are apt to work loose and break. It requires but a small amount of work to put them right in the first place, and little or none to keep them right afterwards.

N. C. A. TO CONTROL ROAD RACING

Long Delayed Decision to Do So Finally Reached—Step Will be Taken at Annual Meeting Next Week.

It practically is a foregone conclusion that at its annual meeting next month the National Cycling Association will vote to assume control of road racing. Requests and urgings that it take the step in order to purge and keep clean that branch of the sport have been multiplying until they no longer could remain unconsidered.

As a result, at a conference of the leading N. C. A. officials which occurred during the current week the matter was thoroughly discussed and it was decided that the unwholesome state of road racing merited intervention if it is hoped to avert complete demoralization. The decision leaves no doubt that at the annual meeting a proposal to extend the N. C. A. dominion so that it will include road racing will be offered and adopted.

The prospect will not carry any great amount of joy to a considerable number of young men who have found road racing an easy stamping ground in which to cut queer capers without restraint or fear of punishment. But that it is a step in the right direction only this class of peculiar sportsmen will question. That they should be able to do "dirty work" on the road and yet be free to compete on the track where similar offenses would beget punishment, long has been an astonishing and contradictory state of affairs.

According to the by-laws the annual meeting of the N. C. A. will occur on Feb. 14th, but it is likely that it will be adjourned for at least one week. It will be held in the Bartholdi Hotel, New York, and for the first time will occur in the evening, which will go far to assure a larger attendance than usual.

Men With Grievances Incorporate.

The so-called National Association of Motorcyclists has played a cruel joke on the State of New York; it has had itself incorporated under its laws to control the sport of motorcycling. But as the sport already is controlled by the Federation of Amateur Athletic Union, what there recognized and, by alliance, respected by the National Cycling Association, the American Automobile Association and the Amateur Athletic Association, what there is for the "corporation" to control and how it is to control anything but its name it will require a magnifying glass to discover.

The so-called National Association of Motorcyclists is the same which was "organized" by a disgruntled manufacturer merely by printing that title on a piece of

paper because one of his riders was disqualified by the F. A. M. for "ringing" a racing machine in an event restricted to stock motorcycles. He has induced several of his stockholders and agents and also his attorney to share his grievance, and as "president" and "treasurer" of his "national association," the manufacturer has a couple of men who never rode or owned motorcycles in their lives but who are "sore" because a law-breaking event in which they were mixed up was banned by the F. A. M.

Salt Lake Track Paid Good Profit.

According to figures from Salt Lake City the receipts of the local track during the 1906 season in round figures totaled over \$27,000, of which amount \$8,000 was clear profit, leaving \$19,000, the expenses of running the track. The prize list per meet amounted to from \$375 to as high as \$2,875. For the match race between Frank Kramer and Iver Lawson, a purse of \$2,500 was hung up together with \$375 extra for the other riders. The expenses per meet was very seldom less than \$600 on an average, not counting the big race, and but for the large crowds that went to see the races, the management would have gone hundreds of dollars behind. In former seasons not more than \$250 was given in prizes at regular meets, and on special occasions the amount was run up to \$300.

New York Motorcyclists Choose Officers.

At the annual meeting of the New York Motorcycle Club on Thursday last, 10th inst., the following officers were elected for the ensuing year: President, R. H. Nickerson; vice-president, F. A. Roy; secretary, D. Patterson; treasurer, F. M. Manning; captain, M. E. Toepel; first lieutenant, A. Kreuder; second lieutenant, A. O. Viereck; board of directors—A. T. Nickerson, M. L. Bridgman, R. G. Betts, E. Malloy. Roland Douglas originally had been nominated for the presidency but declined the honor.

Coolidge, He Proposes a Law.

Calvin Coolidge, one of Massachusetts' great and wise Assemblymen, apparently does not think the drastic automobile laws of his State—to which motorcyclists are subject—sufficiently resemble those of Russia and accordingly has introduced a bill in the House to help achieve the purpose. It incorporates the old, old idea of prohibiting the use of the public highways to any motor vehicle capable of a speed of more than 20 miles on level road.

Motorcycles May Meet on Ice.

The Muskegon (Mich) Motorcycle Club is planning a race meet on the ice on Lake Muskegon which may occur late in the current month or early in February. The lake admits of the laying off of a three miles course.

NO MORE MOTOR CARS FOR COPS

St. Louis Officials Decide that Motorcycles are Better for Police Purposes—Squad to be Formed.

Convinced of their greater utility for the purpose, the St. Louis board of police commissioners has decided to abandon the use of automobiles in the work of enforcing the speed laws, and equip the department with a squad of motorcycle patrols. Although two police cars have been in service for a number of years, the commissioners are convinced that no signal results have been achieved through them. It is proposed, therefore, to begin the new endeavor with a squad of six officers mounted on motor bicycles, gradually increasing the number to twenty as the results warrant the necessary investment.

The speed limit in St. Louis is eight miles an hour, but the law is so loosely enforced that the majority of motorists go about at a rate approaching more nearly fifteen than eight miles an hour, and with little risk to their pockets. Arrests have been at the rate of two a week, and the police court judges have a rule from which they never deviate, which involves a penalty of \$15 and costs to the offender, so that most of the arrests have resulted in convictions. The continuance of the general practice of exceeding the limit, set the board to thinking, and as a result a tour of investigation was made to New York and other Eastern cities where motor bicycles are in use, and the systems in use studied carefully. The purchase of the first batch of half a dozen machines will be the resulting first fruits.

About the Patching of Tires.

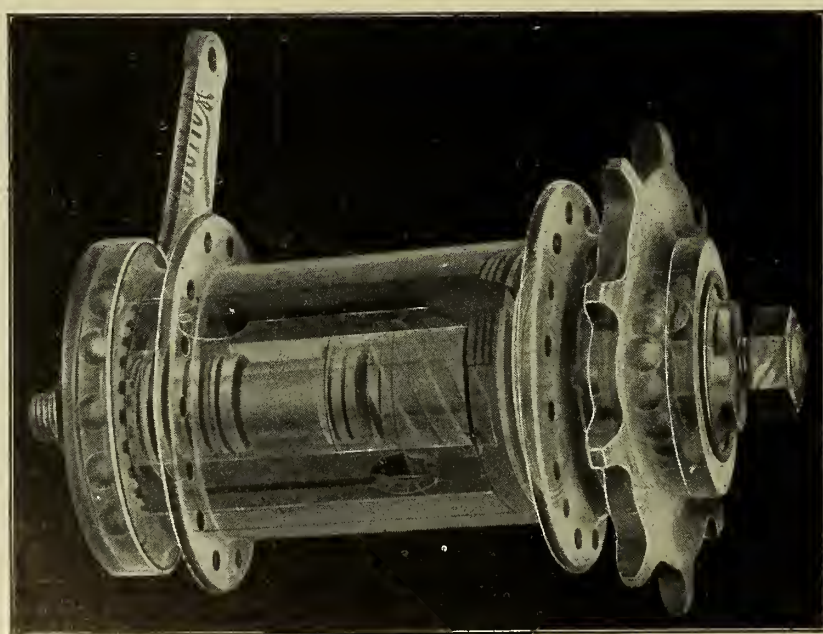
In patching cuts in outer casings, cleanliness is the first essential, the presence of even the least amount of dust or even "bloom" from the rubber itself, spoiling the chances of getting a good union between the patch and the shoe. With a little care, as good patches may be made from the tread portions of old sprint bicycle tires as can be purchased ready to apply. When such fragments are to be used, however, their sides should be chamfered uniformly to a thin edge, so that there will be no roughness within the case after the job is finished. Before applying the solution, the prepared patch should be thoroughly scoured with fine sand paper, and a thin coating of solution applied and allowed to get "tacky." Carefully applied and pressed firmly into place in such a way as to exclude any air-bubbles which may have been formed, there is no reason why it should not last for a very long time, and for ordinary useage even serve nearly as well as a vulcanized patch.

If you failed to do so last year

Why Not Have Your Bicycle Morrowized

for this season's use?

It is the time when your local dealer or repairman can give the most time and best attention to the work.



The Morrowized bicycle is a more pleasurable
bicycle and a safer one.

If you are not fully informed drop us a line.

ECLIPSE MACHINE CO.,

Elmira, N. Y.

BARDGETT OUTROLLS FOGLER

Too Much Prize-Fight Helps Defeat Six Day Victor—Devine and Weintz Take Amateur Honors.

Quite unexpectedly Walter A. Bardgett, of Buffalo, N. Y., defeated Joe Fogler, winner of the last six-day race, in their unlimited match pursuit race on home trainers, at the National Athletic Club, Brooklyn, Thursday night, 10th inst. Bardgett had to ride $5\frac{1}{2}$ miles to do it, however. This was the second of the home trainer races that the Nationals had carded with their regular basket ball games, and as the event had been well advertised a large house greeted the performers.

The first event was a one mile race between Owen J. Devine, of the promoting organization, and Walter Goerke, of the Park Circle Club, who used to ride flat floors fairly well but who since has become a crack motorcyclist. This was Goerke's first race on the rollers and he seemed to be a bit timid, allowing Devine to get the lead at the start and to hold it to the finish. He lost by about 6 inches on the dial.

Louis J. Weintz, of the N. Y. A. C., had something of a hard nut to crack in the person of Franklyn Fisher, of the Cork Pullers, in the one-mile go which formed the second number on the program. The hands representing Fisher and Weintz kept tagging each other all the way around for the first lap—a half-mile—when Weintz forged ahead. Although Fisher came back with a sprint he was unable to more than breast the New Yorker before the latter set sail for home. Fisher was not caught napping and he gave Weintz a good set-to before the finish, although the latter won out by about an inch. Time for the mile, 1 minute 23 seconds.

Fogler and Root, the joint winners of the last six-day grind, were the first of the pros to try conclusions in a one-mile match. Fogler had been down to a little town opposite Camden, N. J., the night before to see one prize-fighter pound another wind-jammer and in consequence of the early morning trip home on the "owl" train was a bit unsteady in his trestle work. Root gained the lead at the start and, speaking from the dial, opened up a gap which Fogler could not close; although the latter pumped like a double-acting well-borer he missed out by a few inches. Time, 1 minute 15 seconds.

Supposedly the "piece de resistance" was the unlimited pursuit between Bardgett and Fogler. The last time Bardgett rode Fogler he was announced as having hailed from Salt Lake City. Thursday night the announcer said it was Buffalo, when a small boy down in front yelled to a friend in the gallery: "Geel dat guy must be a travelling

man." At any rate he traveled some on the rollers and when it was all over Bardgett looked like he had come through on a Pullman while his opponent looked as though he had ridden the ties from Oskaloosa east. The Buffalonian tagged Fogler at $5\frac{1}{2}$ miles; the time was 10 minutes 15 seconds.

Court Says "Cyclists" Must Stand.

Although by an overwhelming vote, the members of the world famous Cyclists' Touring Club voted to eliminate the word "Cyclists" from its title, the English courts have refused to sanction the procedure. The purpose of the projected change was, of course, to make automobilists, pedestrians and all other tourists eligible to membership but although defeated in the balloting the true blue cyclists in the organ-



NEW YORK BRANCH: 214-216 WEST 47TH ST.

ization fought the proposal to the end and appeared in court to oppose it.

In giving judgment, Mr. Justice Warrington first intimated that, even if the matter were within his discretion, he did not think he would exercise it in favor of the application. He was not satisfied that such a change would be in the interests of the club generally, as well as of the opponents to the application. But he grounded his refusal of the application upon the fact that the proposed alteration did not come within the scope of the law governing such cases, because it would alter materially the nature of the business, and also because it was proposed to cater for all tourists, not to combine a business of one kind with another of the same kind. Nor had it been made out that the new business could be advantageously combined with the existing business. He also thought it would be practically impossible while catering for motorists, to give the cycling members proper protection against them. The application was therefore refused, with costs.

DELLING "TEN-LAP CHAMPION"

His Two Brilliant Victories in Armory Races Give Buffalo Enthusiasts a New Idol—Breaks His Record.

Ed Delling, of the Ariel A. C., again proved himself Buffalo's king pin indoor rider when at the 65th Regiment games, January 4, he won both the two mile handicap and the pursuit race. In the handicap he clipped two-fifths of a second from the two-mile armory record, also held by himself, going the distance in 5:08 flat on a track ten laps to the mile.

In the pursuit race he did a mile in 2:34, which is two seconds faster than Warren Zurbrich's record of 2:36, made in Buffalo years ago. Buffalo figures that this makes Delling "ten-lap-to-the-mile national champion."

The summaries:

Two mile handicap—First heat—Ed Delling, Ariel A. C. (scratch) first; Tracy Knipple, Ariel A. C. (160 yards) second; A. W. Holmes, unattached (105 yards) third. Time, 5:12. Second heat—Fred Schutt, Bunker Hills (scratch) first; W. E. Bauman, Ariel A. C. (15 yards) second; J. Stauber, Ariel A. C. (160 yards) third. Time, 5:19 $\frac{1}{2}$. Third heat—J. Stiglmeier, Ramblers C. C. (95 yards) first; Al Mercer, 65th Regiment A. A. (20 yards) second; R. Souter, Berkely A. C. (135 yards) third. Time, 5:16 $\frac{3}{4}$. Fourth heat—R. 'J. Hoover, Ariel A. C. (50 yards) first; second, E. Felber, unattached (140 yards) second; J. Kraus, Ramblers' B. C. (160 yards) third. Time, 5:18. Final heat—Ed Delling, Ariel A. C., first; J. Stiglmeier, Ramblers' B. C., second; W. E. Bauman, Ariel A. C., third. Time, 5:08.

Two man pursuit race—First heat—Al Mercer, 65th Regiment A. A. Felber fell. Distance 2 $\frac{1}{4}$ laps. Time, 0:45 $\frac{3}{4}$. Second heat—Ed Delling, Ariel A. C. Distance 11 $\frac{1}{4}$ laps. Time, 3:09 $\frac{3}{4}$. Third heat—R. J. Hoover, Ariel A. C. Distance 2 miles. Time, 5:18. Fourth heat—J. M. Tanner, Ariel A. C. Distance 2 miles. Time, 5:18. Semifinals, first heat—Al Mercer, 65th Regiment, distance 14 $\frac{1}{2}$ laps. Time, 3:45 $\frac{3}{4}$. Second heat—Ed Delling, Ariel A. C., distance 9 1-3 laps. Time, 2:22 $\frac{1}{2}$. Final heat, —Ed Delling, Ariel A. C., first; Al Mercer, 65th Regiment A. A., distance 10 $\frac{3}{4}$ laps. Time, 2:47 $\frac{1}{2}$.

Compensation to the amount of \$1,500 has been secured by the National Cycling Union for the widow and family of a Midland cyclist, who was killed in a collision with a horse and cart. The driver of the vehicle was subsequently tried for manslaughter and acquitted, but civil proceedings were instituted by the British organization with satisfactory result.

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SIMPLICITY OF THE MAGNETO

Its Elements Explained to Show Why it
Need Have No Terrors for the Non-
Technical Motorcyclist.

In last week's issue of the *Bicycling World* I advocated the discussion of the magneto situation. This article is a criticism upon one bearing the same title and printed in your Dec. 22nd issue.

In the article referred to it is stated that (speaking of the magneto) "others claim for it less reliability than the more ancient method of developing the spark (meaning the dry cell system, of course,) and point out the fact that in case it (the magneto) becomes deranged, there is little or no hope of repairing it outside of the laboratory."

Now this statement is entirely false. Such a conception is the outcome of total ignorance with regard to the fundamental principles of the design and construction of a good magneto. The writer of the article which I am criticising does not himself believe this statement, as his subsequent remarks show. He simply puts it forward as an expression of opinion by many who know nothing about the subject. Hence in condemning this statement, and applying the term ignorant to the unknown author of this saying, I am not indulging in personalities—a procedure to be avoided at any cost in a technical criticism.

In order to prove the above statement false let us see exactly wherein the magneto differs from the battery and coil type of ignition.

In the first place each is what is called a high tension ignition system, that is, the electric current used in igniting the charge in the engine cylinder is one of high voltage or tension in both cases. In the case of the magneto the amperage or quantity of current is much greater than in the case of the battery and coil system, which means a hotter and more efficient spark is the result. The voltage or tension, however, is no higher in one case than in the other, and is dependent upon the distance separating the points of the spark plug in the cylinder and not on the source of the current as many suppose. If two discharging points be separated a certain distance, as those of the ordinary spark plug, it makes practically no difference what voltage the electric system may generate under other and different conditions, the voltage or tension in this particular instance will be fixed by the length of the discharge gap, since other influences, such as compression, are a constant. We will assume then, and with a perfect right, that the magneto and battery systems produce currents of the same working voltage. The difference between the two ignition methods, and the superior working results produced by the

magneto, are not due to its higher voltage or tension. Let so much be thoroughly understood.

For the sake of argument, and incidentally of clearness, let us assume the amperage or quantity of current generated by the two systems is the same. They are not, since the magneto gives a much hotter spark, but assuming they are, the magneto is still away ahead of the battery and coil system. Despite rumors to the contrary, the magneto is more simple, less liable to get out of order, and more easily understood if properly approached, than the battery system. By comparing the systems in a simple manner I shall try and convince you that what I say is true.

Since the two systems generate the same kind of electricity and at the same voltage or tension, wherein lies their great point of difference—and they do differ widely as commonly considered. The difference between the magneto and battery system of ignition lies in the manner of producing the electric current. In each case the current originally produced is one of low tension, and the transformation of this current to one of high tension is accomplished in both systems by practically the same means. What I am trying to impress upon my readers, and I wish to have it distinctly understood, is that the difference between the magneto and battery system is a difference of method of generation only. It is not one of quality of current or method of transformation.

There are two methods of generating electricity with which we have to deal in the present instance. These methods are known as the chemical method and the induction method. The first method applies to the battery ignition system, while the second method is the one employed in the magneto.

If we place a plate of zinc and one of carbon in an aqueous solution of sal ammoniac (a salt of ammonia) we form an electric battery. You all know this from your experience with the batteries which operate electric bells. Now if these two plates be kept separate, practically no chemical action takes place within the cell, that is, the sal ammoniac does not attack or "eat" the zinc or carbon. If, however, we incline the plates so that they touch, or if we connect them by means of a metallic conductor such as copper wire, the zinc is immediately attacked and bubbles of gas arise to the surface of the liquid as a result of the chemical action between the zinc and salt solution. The bubbles are the visible result of this chemical action, but there is a more important result (at least to us) taking place which is invisible. If an ordinary compass be placed beneath the wire connecting the two plates the needle is deflected. Something is going on in the wire which effects the magnetic needle. Oersted first performed this experiment and thus proved the relation of electricity

to magnetism. We know now the compass needle was deflected because of an electric current flowing in the wire joining the two plates. The electric current is the result of the chemical action of the salt solution upon the zinc plate. As we cannot get something for nothing, we use up zinc and sal ammoniac to get electricity.

This is what occurs in the ordinary dry battery, for although the battery is called "dry" it is only partially so because of the finely divided material which is mixed with the salt solution to prevent it from spilling or slopping over. This is the method of generating electricity as employed by the battery system of ignition. We generate electricity, but we pay for it in the form of zinc consumed and salt solution spent. If the supply of zinc or salt solution gives out (and it is usually the latter, since the containing vessel of a dry battery is itself the zinc element) between towns, the unfortunate motorcyclist is forced to indulge in some strenuous pedalling to the nearest battery shop.

The magneto does not depend upon chemical action for its source of current supply, but upon the power of the engine it ignites. That is, the magneto is simply a convenient means of transferring a very small part of the mechanical energy of the motorcycle engine, into electrical energy to be utilized to ignite the said engine. I shall try and explain how this is accomplished.

Suppose I take a coil of insulated wire, and such coils may be bought in any electric supply house, and connect the ends of the coil to two pieces of metal pipe to serve as handles. Now if I plunge into this coil a bar of steel powerfully magnetized, a person holding the two handles would receive an electric shock, the severity of which would be dependent upon the length of the wire in the coil, the distance of the convolutions of the coil from the magnet, the strength of the magnet, and the rapidity with which I plug it into the coil. With a spool of very fine wire, such as No. 38 B. & S., for instance, and a powerfully magnetized cold chisel, it is possible to give a person very severe shocks with this simple arrangement.

Where does the electric energy come from? In this case there are no chemicals employed, hence the electricity generated is not the result of chemical action. As a matter of fact the source of electrical energy lies in the muscles of the person plunging the magnetized bar of steel into the coil of wire. That is, the coil of wire and the bar magnet simply served as a means of transforming muscular energy. Let me explain the principles upon which such a transformation is based.

A magnet is surrounded with what is called a "field of force" or "magnetic field," and it is the influence of this field which draws small bits of iron to a magnetized bar. Now there is a law of electrical sci-

ence which states that when a conducting wire crosses or "cuts" such a magnetic field, there is "induced" in said wire an electric current. I think you will also see that the larger the number of wires, and in a coil this means the greater the number of turns or convolutions, the stronger this strange induced current will be. This, then, explains how mechanical energy may be transformed into electrical energy.

In the case of the spool of wire, and magnetized bar, it will be seen that plunging the bar into the coil and withdrawing it, caused the coil of wire to cut the magnetic field surrounding the bar, and thereby induce an electric current in the coil. Now plunging a bar into a coil and drawing it out again is a rather awkward procedure, so in commercial applications of this principle we revolve the coil rapidly in front of a series of powerful magnets. This procedure causes the coil to cut into the magnetic field very rapidly, and thus generate a powerful current of electricity. Not only is the magneto such as used upon motorcycles and automobiles based upon this principle, but the large dynamos feeding the street lighting circuit employ the same scheme. In fact a magneto is nothing more or less than a miniature means of transforming a small portion of the power of the engine into electrical energy for ignition purposes.

I hope I have made it plain to my readers the two methods of generating an electric current, as illustrated by the battery and magneto. In the former case the current is the result of chemical action, since a metal and a chemical compound undergo transformation to furnish the required energy. In the latter case the current is the direct result of what is called "electromagnetic induction," the mechanical energy of the motor being transformed into electrical energy. In the case of the battery there is a constant wasting away of material substances—the zinc and salt solution—which cost money. In the case of the magneto there is a wasting away of a very small part of the power of the engine, and this, of course, costs practically nothing. A battery requires frequent replenishing. A magneto—never. A good magneto will outlast a dozen engines, if properly handled.

Do I hear some one ask the question "If a magneto uses some of the power of the engine, why does an engine fitted with magneto ignition show more power on the hills, and greater speed on the level, than the same identical engine fitted with battery ignition?" Simply this. A magneto furnishes such a very much hotter spark than a battery, that more explosive force is obtained from a given charge of gas when magneto ignition is used as compared with battery ignition. That is, the slight loss of power absorbed by the magneto is much more than compensated for by the greatly increased power of the engine on account

of the hotter spark due to magnetic ignition.

Bear in mind I am trying to show you the magneto is more reliable and more simple than the battery system of ignition. In the light of what I have just told you, which method appears the more simple and reliable? Your battery is liable to give out when you are miles from civilization, from the failure of its very source of energy. In the case of the magneto, however, such a catastrophe can never happen. As long as your engine revolves and your magneto armature goes with it, you have a never-failing source of energy. To be sure, the contact mechanism of the magneto may go wrong, but that is easily repaired. The magneto, unlike the battery, will never fail owing to an exhaustion of its original source of energy.

The battery furnishes a low voltage or low tension current. So does the magneto—primarily. This is true of even what is called the high tension type of magneto. In both cases the current is transformed to one of high tension by practically the same means. In both cases the principle of the induction coil is employed to transform the current. There is this difference however, and it is a great difference. In the case of the battery system the induction coil is a separate device, which is bulky and unsightly in position on a motorcycle frame. In the case of the magneto the induction coil is a part of the magneto itself. In fact, the Simms-Bosch high tension magneto the induction coil and magneto armature are one and the same. This very greatly simplifies matters, and is no doubt the leading reason why this high type of magneto has given such great satisfaction.

Should a magneto give trouble on the road it is no more necessary to seek out a repair shop than if a battery and coil system were used. If the motorcyclist will get out of his head the prevailing idea that a magneto is a mysterious and complicated affair, there would be less trouble in locating ignition faults in a magneto system than there would be in the case with the battery outfit. Study the directions that accompany the magneto and you will be surprised how quickly you grasp the principles involved. And the next time you meet a motorcyclist who tells you the magneto is no good, just spread the gospel and disillusion his fears. Only the inexperienced or grossly ignorant condemn the magneto.

EARLE L. OVINGTON.

Difficulty in Starting With Magneto.

Editor of the *Bicycling World*:

It was with great pleasure I read Mr. Ovington's article on the magneto in your last issue, as I agree with all that he has to say in regard to the fine running qualities of the magneto and its many advantages over batteries; I think that in a couple of years that it will be the only thing used on motorcycles. I used one the past sea-

son and was well pleased with it in every respect but one and it may be that Mr. Ovington can give points to the readers of the *Bicycling World* that use magnetos, how to start same easy and on a slow speed, as at the best I have to pedal anywhere from 100 to 500 feet to get it working; although I can start it on the stand with little exertion, I seem to have to get up a certain speed before explosions will take place. I have a Simms-Bosch magneto. I know that any information that will tend to make the starting easier will be appreciated by the readers of the *Bicycling World* who are using that reliable form of ignition.

H. E. D.

Sealed Box for Spare Tires.

While the usual recommendation for the preservation of rubber goods, and particularly tires and inner tubes, is to seal them up where they will be free from air currents, and protected from the drying influence of either light, or a high atmospheric temperature, where the storage of such goods is to be prolonged for any considerable length of time, it is well to take even greater precautions. To this end, the box or case in which spare tires are ordinarily kept, should be lined across the bottom with thin sheet metal, and a false bottom also of metal made for it and supported on short wooden legs.

In this way a sort of water-tight pan is formed in the main bottom while a great number of small holes cut in the false flooring, permit a perfect circulation of air within the case. After the goods have been packed away in the ordinary manner, a small quantity of ordinary rubber solution is poured into the bottom and allowed to spread out over the entire surface. A little gasoline or naphtha should be added, and the cover of the box sealed up. In this way, the neutral evaporation of the thinned solution will gradually exclude the atmospheric air and leave only a vapor which keeps the rubber soft and uninjured for an indefinite length of time. For small parts such as patches, and odds and ends of the same material which it is desired to preserve, a smaller box may be used to advantage, fitted with a double bottom in the same manner and having a tightly closed cover.

The London newspaper cyclists, who, of course, have to ride in all weathers, introduced some ingenious home-made mudguards for their journeys in the recent snow and slush. A common method consisted of fixing a piece of cardboard, oil-cloth, or part of a box lid by means of wire just under the tube connecting the head and the bottom bracket, while anything, from a newspaper to a piece of canvas does duty as a rear guard.

"The A. B. C. of Electricity." Price, 50c. The *Bicycling World* Company, 154 Nassau Street, New York City. ::

TO SAN FRANCISCO BY EASY STAGES

PART IV—DENVER TO OGDEN

This is the fourth of Stanley Bowmar's article describing his motorcycle trip to the Pacific Coast. The first, being the account of his journey from Buffalo to Chicago, appeared in the December 1st issue of the *Bicycling World*. The second, Chicago to Omaha, in the December 29th issue. The third, Omaha to Denver, in the January 5th issue.

In Denver I ran the risk of being fined for failing to register my machine. Motorcycling is very popular in the Queen City, and everyone has to register his machine and display the number tag behind the seat. In the past apparently the police department has had a number of reckless riders to deal with, for whose sins everyone has now to pay. One Sunday evening when I was returning from an excursion to Sunset, a man in blue did challenge me, but when I admitted my guilt in not registering within the ten days' limit and explained that I was a visitor, he was satisfied.

Although enthusiastic motorcyclists are numerous in Denver, I found them to be pessimists and cold water pourers as far as the Denver-San Francisco tour was concerned. All sorts of obstacles—bogey and otherwise—were raised, and one and all as good as told me that I would be a wiser and sadder fellow before I saw the Golden Gate.

I had my own ideas about that, however, and, although I knew the roads, after recent rains, would be exceedingly wet for the first twenty or thirty miles at least, I took up the tour and headed north for Cheyenne, where I would again pick up the Union Pacific railroad, with a keen sense of enjoying beforehand pleasures that I knew would come.

A Denver friend who was at first very anxious to finish the tour with me went so far as to purchase a new motorcycle and a good deal of extra outfit, but when it rained all day Monday, Sept. 24, the day on which we were to start, and again Tuesday and Wednesday, the yarns of the pessimists about getting snowed up on the Rockies or the Sierra Nevadas and of autumn blizzards on the deserts, began to take effect and he decided that the pleasures of the trip were too uncertain and the possibilities too grave.

When I set out Friday morning, Sept. 28, the weather conditions were perfect—it was a characteristic Colorado morning, clear and fresh. West of Denver I carried an extra half-set of tires, batteries, an ammeter, a Mason stand, besides the valves and other sundries brought along from Chicago.

That first day out from Denver I made eighty-five miles to Dover. For the start the motor, usually faithful, did not work well, and I discovered that the cam in the make and break had slipped. One fellow who was driving to town in a buggy and did not like the way I passed him on the wet roads, offered to take a fall out of me,

if I cared to stop, but as I knew only too well that I would get plenty of these, I merely turned on a little more gasoline. As it happened, I did get a fall that very evening. Between Ault and Dover, all open prairie which stretches to the Rockies on the left and to the right for a hundred miles or more, the road is unfenced. It was getting dusk and I was skipping along at a fair pace, paying more attention to the little prairie dogs than to the road. I saw a fence ahead, but as there was no visible gate across the road, did not slacken speed. The next minute I was doing the double somersault trick over the top wire of an improvised barb-wire gate, which in the twilight it was impossible to see—until too late. The front tire was badly ripped, though, luckily, not punctured. As a rule ranch owners hang a sack on wire gates, which acts as a very necessary flag of warning.

The next morning there was a tinge of frost in the air and though the roads were often more attractive than three yawning ruts, riding was very pleasant. Between Denver and Eaton, 60 miles north of Denver, irrigation canals from the Platte River have turned the dried-up prairie into veritable gardens but from Eaton to Cheyenne one strikes the higher lands where the farmer has to rely on the rainfall. What few farmers there are make money during wet seasons, but when there is an insufficient rainfall, as is mostly the case, bills accumulate.

Tire troubles caused a good deal of delay this morning. Dover is only thirty miles from Cheyenne, and though there is a steady up grade, it is not sufficient to cause any trouble. I did not, however, reach Cheyenne until eleven o'clock, having had to fix three punctures. This was the first tire trouble I have had. Although I replaced the plungers in the valves somewhere in Nebraska, the Buffalo-to-Denver stretch was covered without one puncture.

At Cheyenne an extra gasoline tank, which had been shipped on from Chicago, was waiting. As far west as Cheyenne, one has not the slightest trouble to get gasoline, not if he is careful. Keep the tank full was my policy, and on that score I had no trouble whatever. Once over the Rockies, the gasoline problem is apt to crop up, and the price of it ranges from forty to fifty cents a gallon. Dead or half-dead batteries are from forty to fifty cents apiece—you can't get good, live ones for love or money.

Cheyenne is 6,050 feet above sea level,

but when I left there Sunday morning to cross the Rockies, I straightway began to go skywards. There are two roads across the mountains, one, the "Happy Jack" road, follows the railway line; the other, a shorter route, is a wagon trail that makes the descent on the west side of the mountains down what is known as Telephone Canyon. I decided to try my luck down the canyon, as I was told this was the better route.

Within four miles of the summit, the motor hauled me up everything, but, of that last stretch, half at least had to be gotten up in the reverse fashion—I hauled the motor. It would have taken a twenty horsepower engine to pull its own weight up some of the grades. To get myself and the machine up some of them, I guess I had to develop a good fifty horsepower. It was a bitter disappointment when I did reach the summit—there was no view, and the road was so rocky down the canyon that it was almost unridable. I free-wheeled down at a snail's pace, arriving at Laramie just before dark.

During the day both the machine and I received a good deal of knocking about. Another dent in the gasoline tank and a bent pedal on it and a torn coat and a cut in my tough elk-hide boots spoke pretty eloquently of a header we took down a wet slimy gulch.

The tempter came to me at Laramie with a fine-sounding story of a "short cut."

"Go this way," he told me, "and you will have a good road that runs direct to Fort Steele," but "following the railway you will have no road and will travel in a round-about direction."

"What about getting lost?" I queried.

"Lost! You can't get lost. Go right down here two blocks, cross the bridge, then turn to the right, then to the left, after that cross two side roads and——"

Here I began to take notes, and soon had several pages of shorthand that would have made Isaac Pitman scratch his head to decipher.

"But anyhow," this man from Lovejoy's garage added, "you've only to follow the track of an automobile that we sent that way yesterday. The party is making a tour from Denver to Pasadena." That was a clincher. I'd follow the track of the automobile party, and then, if the worst did come to the worst, as I had a suspicion it would, there would be company in distress.

Away I went, whistling the Hallelujah Chorus or something of that sort, but every mile or two had to interrupt myself

to get off to follow my mysterious notes, for there was no ranch at which to inquire. At last I came to the gate that in the notes was referred to in unmistakable terms. I knew I was right so far.

Dodging along like this, I must have covered a good forty miles without mishap. Then a rock got mixed up with the back wheel, tore out two spokes, and somehow broke the pedalling chain. However, I could get along without them. When I left Denver, I saw that my repair outfit included everything that I could possibly want; in fact, it seemed that I had about enough stuff to stock a fair sized wholesale store, yet to make the damage done by the first accident I required just what I did not have—spokes and a chain link.

"After going through the gate," the notes read, "take every right hand turn. That is what I did, against my own convictions. The first right hand turn led down the valley, and I felt certain that Fort Steele did not lie in that direction. Soon it grew dark. There was no Hotel Astor about in any shape or form; not even a Sherry's or a Delmonico's—only an empty ranch house. The door was not locked, and I ventured in. It was evidently a bachelor's camp, and had been vacated a week or more. Strewn about the floor were several boots, a riding whip and numerous empty whiskey bottles; on the table, cups and plates and tea and coffee cans. There was nothing edible but an unopened package of Quaker Oats. I was hardly bold enough to make a fire in the stove and cook some of these, although I felt much inclined to do so. Judging from the empty bottles, our unknown friend was of an hilarious turn of mind, and if he returned to camp "on the spree" to find a burglar coolly using his stove, he might not appreciate the situation.

I decided to take no risks and to camp in the empty hay loft. It was a beautiful moonlight night and when the cold woke me every now and then, I could hear that mournful howl of the coyotes as they prowled around. But don't think it was lonely. It was not in the least. Fifty or sixty rats held a dance and carnival in the loft that evening.

As no one had returned to the house during the night, I raided the package of Quaker Oats in the morning, and on these and tea had a makeshift breakfast.

The problem of the morning was, Where is the right road? I knew that I had not gone far astray. Climbing a hill, I saw down in the valley smoke rising. This proved to come from a small ranch house, and the good lady of the place, who was all alone, her husband and daughter having gone to Laramie the previous day, kindly directed me to the road for the West. She told me that the man who used to live in the house where I spent the night was now in the lunatic asylum, a raving maniac from drink, and that he had been found in an almost dying condition by another trans-

continental cyclist from New York City, who had taken the wrong turn where I went astray. Of this cyclist, more anon.

That afternoon I passed Arlington Post Office, and Harenden's Ranch. Mr. Harenden kindly took a link out of an old bicycle chain he had and supplied my wants in this direction. Stayed at Elk Mountain that evening.

Wednesday morning it was blowing a howling gale, and the Elk Mountain Hotel people predicted a storm. Personally I thought it was going to snow, for the wind was icy cold. Down Rattle Snake Creek Canyon, a narrow gorge, the wind blew the motor to a standstill, and overbalanced me time and again before I could get another start.

At the mouth of the canyon I was utterly at a loss to know which way to turn. There were three roads—apologies for roads—one to the right, one to the left and another straight ahead. There opened out before me a wide sweep of level country, covered with sage brush. Not one of the roads was much traveled, and as for the track of the automobile that had left Laramie the day before me, I had not seen it more than twice in seventy miles. Three or four miles to the right there was a small ranch house, and I set out for this. It must have taken a good hour and a half to reach it and then—all desolation. In one room there was some coal stacked up, which indicated that the place was a winter camp for the cattle and sheep herders.

For several hours I tried first one track and then another, but they all seemed to lead to a far away Nowhere. The railway could not be far away now, but in which direction did it lie? Instead of abating, the gale increased until it was scarcely possible to push the motor against it and through the sand. Presently it began to snow—one of those pitiless, driving snow storms. It was impossible to tell which was east and which was west, and with no fence or railroad for a guide, to start out in the wrong direction meant to take a hopeless, endless excursion into a God-forsaken, never-never country, a harborless sea of sage brush and sand.

I had had nothing to eat since six o'clock that morning, and it was now four. I had wandered away from the empty ranch house, and in the storm one could not be at all certain of retracing one's steps. Leaving the machine on a mound, I started to follow what appeared to be a new sheep trail. As the snow began to accumulate on the ground the trail became harder to follow, and besides it was growing dark. Was this going to be another wild goose chase? It looked like it.

I had gone fully three miles from the machine, and was thinking of retracing my steps, when I spied something white, half a mile ahead, that in the gloaming showed up against the dark sage brush which, in the high wind, had not caught much snow. I went on to investigate. Soon I could dis-

tinguish a horse sheltering on the lea of a van, and I knew that I had the good fortune to strike a sheep herder's camp. I have had some rough experiences, but I do not remember ever having been so glad to get to any place of shelter as I was to step inside that camp van, and those lonely herders were quite as pleased to see me as I was to find them.

The fire in the stove burned brightly, and although the storm beat with breaking force against the canvas, we were cosy and secure. It was already dark, and after supper we swapped yarns for an hour or two and then turned in to bed—three of us in a two-man bunk—to spend a restful night, and to wake in the morning, the storm cleared away, to hear, as the sheep began to feed, that sweetest of all music, heard only in the West, the tinkling of the sheep bells.

The herders were familiar with every inch of the locality, and directed me to the Fort Steele road. When I got back to the machine, it was covered with snow, as it had of course been out all night. But it did not balk. As soon as I struck a rideable track, the engine started and we were soon cutting through the snow and again steering westward.

Two o'clock in the afternoon saw me at Rawlins, a town of 2,500 population, situated on the eastern edge of the Red Desert. The special desert gasoline tank, which fitted on the front of the handle bars, no doubt in theory a triumph of the tinsmith's art, was in practice a dismal failure. With astonishing regularity it developed three or four leaks a day. Here I left it behind and filled my canteen with gasoline instead of water.

At Rawlins I was surprised to come up with, not the Denver-Pasadena automobile party, but their machine, which they had sold in disgust to a local second-hand dealer, and taken to the cushions. Their experience over the illusive "short cut" from Laramie was even worse than mine. The ninety-five miles took them three days, but they declared that each day they had covered at least an extra hundred miles looking for the road.

I was keen to get going the next morning. I had heard so much about the deserts that I was enthusiastic over the first day's desert run. I expected the deserts to be much more like vast sandy plains than they are. On the Red Desert the land in undulating—wavy, like the ocean when there is a big swell running.

It was the lifeless silence and solitude of the deserts that impressed me most. The wind, which in the day time blows everlastingly from the west, sings a mournful, lonesome song in the telegraph wires, always sad and cheerless. There is no song bird—no living thing of any description, save a stray, sick-and-sorry-looking coyote, which with a furtive and evil glance at one, starts from his hiding place under a sage bush and quietly slinks away.

The alkali flats, where the ground has the appearance of a hoar frost, were the only places where the sand was not deep. Tossed up by the head wind, the alkali dust got in my eyes, ears and nose, and coated my lips, which soon cracked.

The first morning out from Rawlins I passed two young fellows who were driving across country to the gold mines near Goldfield, Nevada. Possibly they themselves reached their destination, but I doubt very much whether their two horses did. From the look of their dull eyes and drooping heads, all their hopes seemed to be centered in the next world. When I came up with these men they were resting their horses, and I halted with them an hour or

trans-continental cyclist of whom I had heard near Laramie. This gentleman, a Mr. Rhodes, had pedal-pushed it from New York City, but had not rushed the journey. He had been nearly six months on the trail. So far he had enjoyed his tour just as much as I had, but it made him envious when I told him how well my motor had behaved. In the evening, we set out together for Wamsutter, 14 miles further west. The roads were, however, far too sandy and rough for towing, and I had to leave him behind to battle against the wind and sand.

Next morning I came up with a railway repair gang, who were living in vans and tents. The only one about the camp was the cook, and, as all cooks are great personal friends of mine, I stopped to have a yarn with this one. He proved to be a young, educated Englishman, a graduate from Kneller Hall, and a one-time cornet soloist in one of the crack military bands in London. Love of the bottle and the life of Jack ashore were responsible for his present position. He was saving money,

but a dull and dismal outpost. It is forty miles east of Rock Springs, which meant forty miles without gasoline—forty miles walk!

I left Bitter Creek Sunday morning, Oct. 7, on that forty-mile trundling expedition. Pedalling against the wretched head wind, which blew day in and day out, was not to be thought of. Made Point of Rocks that evening, thirsty and foot-sore. All day water had been at a premium. Bitter Creek that here runs by the railroad is alkali water.

Monday was another hard day's walk, through deep "sand draws," and, as always, against a head wind. I had not got far west of Denver before I realized why a record-breaker should start from the west and run eastward. There are many considerations in favor of running from west to east, but the wind proposition is one of the most important.

At Rock Springs, a town of 5,000 population, I had the gasoline pipe fixed, and filled the tank again, but found myself up against it for batteries. As I have already stated, it is the same in all of the western towns—you can't get batteries of high test. One kicks at paying forty or fifty cents apiece for batteries that test only ten amperes, yet I had to do it on several occasions. The next long tour I tackle—I'm not done yet—I shall certainly arrange with the manufacturers to forward batteries along the line, straight from the factory. If one did not happen to want them at any point, it would be an easy matter to leave them behind. On the other hand, if batteries gave out unexpectedly, one could fall back on the small country stores.

Carry a soldering outfit—that's another thing I am going to do. There is no reason why it should be a heavy part of one's paraphernalia. I had not gotten more than five miles west of Rock Springs, when the pipe which I had had soldered broke again with the vibration, and I had to retrace my steps and spend another hour in the tin-smith's.

Reached Green River, 16 miles, in time for a late lunch, and struck out for Granger, 35 miles west, up a sandy road that ran between the hills. Fifteen miles further on the road swerved down to the river. There was no bridge, and fording was an impossibility. The water would have soaked all the connections, and possibly the batteries. The railway track was about a mile to the right, and I had to cut over to it and then cross the river on the railway bridge. By the time I had got through the fence on to the track and crossed the bridge it was quite dark, and the ties were ballasted too badly for night riding, and to run up against one of those meant an almost certain header. Another fifteen miles walk! I was getting into good walking training these days, but walking over rough ties in the dark was no pleasant dream. About nine o'clock the coyotes started sending dismal, wireless messages



STANLEY BOWMAR, THE CROSS-CONTINENT MOTORCYCLIST

more, and then pushed on to the Continental Divide, a wild, wind-swept spot.

It is the duty of everyone who passes this place to write home to his friends and tell them that he has seen a spot where, if a spring should rise (which isn't the least likely), its waters would divide, one half flowing to the Atlantic, the other into the Pacific ocean. Here is the "Dividing of the Waters." I suppose it was the law of contrasts that brought to my mind as I stood looking out at the repulsive hollows and desolate knobs which make up the scene from the Divide, another famous spot, which doubtless many American cyclists have visited in Ireland, the "Meeting of the Waters"—"The Vale of Avoca, where the sweet waters meet." What a contrast!

With the telegraph operator at Continental Divide, who should I find but the other

he told me, to buy a good instrument. He thought he could then obtain a position as a cornet soloist, and "Keep straight." It would be interesting to know if he is succeeding. One of the gang had "skipped camp" the day previous, taking with him five Smith & Wessons and two razors belonging to his mates and I was warned to be on my guard. "A fellow with five Smith & Wessons!" Whew!

When I left Rawlins I had a gallon and a half of gasoline, more than sufficient for the 120 miles to Rock Springs, had I not had the misfortune to break a gasoline pipe near Bitter Creek. All my precious fluid went abroad. Bitter Creek, with its section house, pumping outfit, one store (located in a shady-looking shed) and a house or two, thinks itself quite an important desert metropolis, but, as it does not keep gasoline, I deny its claim to be called anything

to the man in the moon. That was the only sound that broke the dead stillness of the night.

Although the Union Pacific railroad is poor riding for a cycle almost anywhere, I was sorry I did not stick to the ties from Granger to Carter. The wagon road was either rough or sandy all the way. A few days before it had rained, and a herd of cattle had gone over the road while it was wet and sticky, with the result that it was wretchedly uneven and bumpy where it was not sandy.

From Carter to Evanston I left the railroad, for a road that followed the telephone lines. It was a relief to be where there were springs of cool, pure water; to see

the autumn colors of the cottonwoods and willows and the evergreen pines.

Evanston is just half way between the Missouri and the Pacific Ocean. All through Wyoming the altitude runs from six to seven thousand feet, but from Evanston to Ogden there is a welcome down grade. Ten miles west of Evanston, I crossed the boundary line between Wyoming and Utah, and immediately there was a change for the better—roads improved and the scenery down Echo Canyon superb. Instead of an unproductive waste every nook of land in the valley some industrious Mormon has converted into a prosperous farm. One hundred acres of Utah would be infinitely preferable to the whole state of

Wyoming, all the towns—there isn't a decent city in the state—chucked in, and some of the people, as an extra Christmas inducement.

Evanston to Morgan, a delightful 50-mile ride, was my journey for Friday, and from Morgan I slipped over the remaining 20 miles to Ogden in short order Saturday morning, Oct. 13. Here I left my machine and made a side trip to Salt Lake City, the Mormons' principal city and the capital of the state.

When I reached Salt Lake I was sorry that I had not ridden there, the streets, like the city, are so inviting—wide and bordered by beautiful shade trees.

STANLEY BOWMAR.

BRING YOUR PERSONS ROYAL MOTOR SEATS UP TO DATE



PERSONS MOTOR SEAT RENEWAL SET. PRICE \$3.00.
MAKES OLD MOTOR SEATS LOWER AND PRACTICALLY NEW

THE PERSONS RENEWAL SET

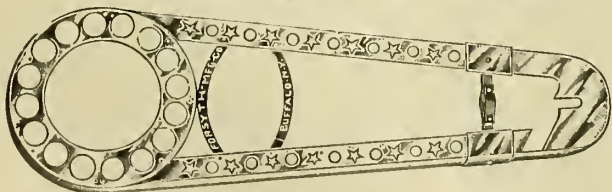
(SHOWN ABOVE)

WILL ENABLE YOU TO DO SO

The set comprises the mounting of our 1907 saddle and is shipped completely assembled and ready for application.

PERSONS MFG. CO, Worcester, Mass.

FORSYTH SPECIALTIES.



Full Chain Guard with All Connections.

Made in sections and riveted together, giving enough elasticity to avoid the "twang" of a one-piece guard. Adjustable to stretch of chain and to differences of length between centers of axles.

FORSYTH MANUFACTURING CO.,

"Handy things
to have about
the house."

We also make

**Mud Guard Fittings,
Sprocket Guards,
Metal Hand Brakes**

and other specialties.

Buffalo, N. Y.

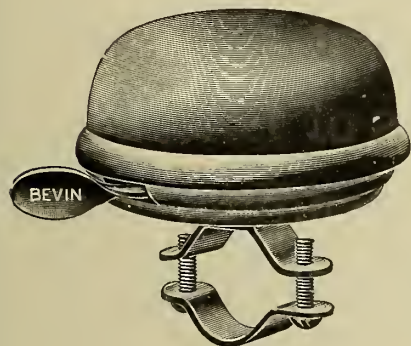


Half Guard with All Connections.

Notice the method of attaching front connection. Enough adjustment to meet the angle of any frame; a little feature all our own. It counts. These guards are just a little better than any others. That's why we are still making and selling lots of them.

THE "Good Old Standbys"

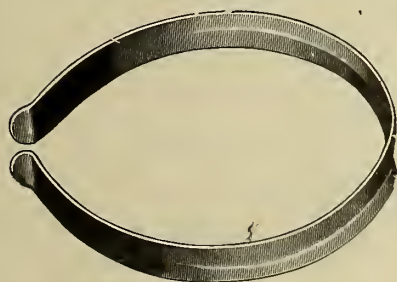
BEVIN Bells



BEVIN Toe Clips



BEVIN Trouser Guards



Prices as interesting as ever.

Bevin Bros. Mfg. Co.
EASTHAMPTON, CONN.

Why Revival Would be Welcome.

In a lengthy editorial in the Louisville Courier Journal attention is called to the increase in bicycling within the last year or two, and some speculation is indulged in, as to how far the movement will extend.

"Whether there will be a revival," says this widely quoted journal, "is a question time alone can answer, but there are cogent reasons why there should be.

"Authorities upon physical culture agree," it continues, "that health-giving exercises are those combining recreation with muscle building, and that all persons living in cities need out-of-door exercise, and, preferably, exercise in the pure air of the country, where the blood may be renewed by a change from the devitalized air of dusty, ill-ventilated offices and smoky streets. The bicycle affords at once a diversion, muscle-making exercise and a means of getting to the country quickly and economically. Because of this the arrival of the bicycle a few years ago, as a practical vehicle, filled a long-felt want, if the hackneyed phrase is pardonable. The wheel was abandoned, temporarily, just at the time it was perfected and its price was reduced to such an extent that it was within the reach of the salaried city man who cannot afford a motor car or a horse. Its place has not been filled."

Physical Culturist Preaches Cycling.

In one of the current magazines, Prof. Luther Gulick, the noted physical culture authority, declares again that the great need of the busy American is enough out door exercise to give him good working health—to keep his mind and body at the highest point of efficiency. Swinging Indian clubs may be very pretty, he says, and a hard half-hour with pulley weights every day make muscle, but neither improves the health like vigorous movements in pure air. Few business men have time for golf and few have time for long walks, but the time for a run through the park on a bicycle or a ride to and from business is at the command of almost every one, and the revival of cycling would be of great benefit for this reason alone.

Paris Has Bicycle Messengers at Last.

Bicycle messenger service is such a common thing on this side of the ocean, that it seems strange to learn that Paris, where cycle policemen are numbered by the hundreds, has just seen the inauguration of such a system. Its promoter, however, was an American, and a woman, at that. According to the story, she formed a company which included several prominent French financiers, and then went before the Minister of Commerce, Industries, Posts, and Telegraphs to secure a legal right to mount the boys on bicycles. She was granted the concession, and Paris took so kindly to the service that she has been the subject of many fulsome press notices.

D & J BICYCLES

Beginning with 1907 no Bicycles will be furnished with D. & J. Hangers except those made by the Hudson Mfg. Co. and we are their exclusive selling agents for the States of New York, Pennsylvania, New Jersey, Delaware, Maryland, Virginia and West Virginia. The list prices of Hudson wheels are:

Model "C"	Model "B"	Model "A"
\$30	\$40	\$50

WRITE FOR AGENCY

We will continue to market our well known "Expert," "Nassau" and "Sportsman" Bicycles. The 1907 models list at \$25, \$30 and \$35 and are fully described in Catalogue No. 38. They are well made, attractive wheels and the net prices are low. Will you get our proposition?

We Want Your Sundry Order Now

It is a great advantage to get your Bicycle Supplies now before the rush begins and we will grant terms that will make it worth your while. Will you call or write us what you require and we will submit prices which we guarantee to be as low or lower than equal quality can be bought elsewhere.

Bicycle Dealers Headquarters

We have stuck to the Bicycle Business since its days of depression and now that prosperity has come again we are leading the van. We have increased our sales year by year and are to-day the largest distributors of Bicycles and Bicycle Sundries in the East. Ask any dealer where he can always find what he needs in the Bicycle line—ten to one he will say "Go to the 'Sporting Goods Co.'"

We will exhibit at Madison Square Automobile Show, Jan. 12 to 19, and the Sportsman Show, March 1 to 9.

17 Warren Street, New York



Continental Rubber Works Suit.

We desire to notify the trade that our suit against the Continental Rubber Works of Erie, Pa., under the Tillinghast Patents is still pending, and that purchasers and users are equally liable for infringement.

The following manufacturers are licensed to make and sell single tube tires under the Tillinghast Patents:

Hartford Rubber Works Co.

Diamond Rubber Co.

Fisk Rubber Co.

Pennsylvania Rubber Co.

**Indiana Rubber &
Insulated Wire Co.**

Goshen Rubber Works

Lake Shore Rubber Co.

B. F. Goodrich Co.

Goodyear Tire & Rubber Co.

Kokomo Rubber Co.

**International Automobile &
Vehicle Tire Co.**

Morgan & Wright.

**Boston Woven Hose
& Rubber Co.**

SINGLE TUBE AUTOMOBILE & BICYCLE TIRE CO.

THE BICYCLING WORLD and MOTORCYCLE REVIEW

FOUNDED 1877

Volume LIV.

New York, U. S. A., Saturday, January 19, 1907.

No. 17

HARRIS ON THE SITUATION

After Wide Sweep of Country, He Sees Naught But Cheering Conditions Ahead—His Own Fine Business.

D. P. Harris, the well known manufacturers' agent, is again in New York after making an unusually wide sweep of country in which was included practically every city in which is located a jobbing house of any pretentiousness. He went as far South as Memphis, Tenn., and as far West as California, Oregon and Washington, returning by way of Minneapolis and Duluth.

As the lines Harris represents include a standard article of practically every department of cycle manufacture, that fact and his extended journey gave him an unusually comprehensive grasp of the trade situation and he states that there is no doubting that the improvement of business is general. There are spots where flatness exists but the general average of betterment is sustained by the big demand in other localities.

"Most of the jobbers are clear of old stock," said Mr. Harris when his views were sought, "and not only did their orders rule larger but they want the goods so badly that a number of them have sent hurry messages since my return. Did I find business in Denver and on the Pacific coast as healthy as had been reported? I certainly did. In Denver it's fine; on the coast it's great."

Of Harris's business during 1906 it is fairly common property that it showed an inspiring increase that reached into six figures. He himself states that the advance was all of 25 per cent. over the trade of the previous year. The wonderful part of Harris's big business is that it has been built up entirely during the dark years of the industry. He did not embark in the trade

until 1898 or just about the time when the irrational boom began to totter to its fall.

New Men in Armac Affairs.

B. F. Horsting, a Chicago business man of many years standing, has been elected secretary-treasurer of the Armac Motor Co., and with his accession to the offices has come renewed energy in every department. E. W. Keller, who has so industriously kept his shoulder to the wheel, remains president of the company, but as superintendent of the factory, Albert Szabelski, a gas engine expert of twenty-two year's experience here and abroad, has been engaged. The 1907 Armac will incorporate no radical alterations, the changes made being rather in the nature of detail refinements.

Midgley's Scope to be Enlarged.

Thomas Midgley, for the past year president of the Hartford Rubber Works Company, will at a very early date assume in addition to his other duties those of a position just created. This new and important office is that of General Consulting Engineer in charge of the mechanical end of the three tire companies, namely, The Hartford Rubber Works Co., Morgan & Wright and the G & J Tire Co., each of which is a unit of the Rubber Goods Mfg. Co.

Evidence of Bailey's Faith in Bicycles.

The James Bailey Co., Portland, Maine, have cast out both carriages and automobiles and henceforth will devote themselves wholly to bicycles and cycle and motor supplies. Such action on the part of such a well established jobbing house is not without significance.

California Dealers to Meet in Fresno.

The annual meeting of the Cycle Dealers Association of Northern California will be held in Fresno, January 21, 22 and 23. Officers will be elected, of course, and as usual a banquet will mark the wind-up.

CYCLE SHOW IN PROSPECT

Manufacturers' Associations Appoint Committees to Probe Feasibility—Son Succeeds Father as Head of C. M. A.

It is possible that January of 1908 will see a cycle and motorcycle show being held in New York. The possibility grows out of an unexpected move in that direction which was made at the meetings of Cycle Manufacturers' Association and the Cycle Parts and Accessories Association, each of whom convened in Hotel Knickerbocker, New York, on Wednesday last, 16th inst.

The accessories association took the initiative in the matter by appointing a committee to wait on the cycle manufacturers—who then were in session in another room—and to learn their views. This committee was composed of C. A. Persons, Persons Mfg. Co.; Alex. Smith, The Standard Co., and W. H. Graham, New Departure Mfg. Co. They found the C. M. A. of such a receptive frame of mind that J. F. Cox, F. I. Johnson and W. F. Remppis were appointed a committee to work with the C. P. A. A. representatives in probing the feasibility of the show project.

The matters of suitable buildings, dates and costs each will be gone into before a decision is reached, although the sentiment seems general that is such an exhibition is brought about it is desirable that it run concurrent with the Madison Square Garden automobile show, which occurs in January and which each year is attracting an increasing number of visitors.

At the meeting of the Cycle Manufacturers' Association there was another unexpected happening, George N. Pierce tendering his resignation as president. He was, however, at once succeeded by his son, Percy P. Pierce, who was chosen to fill the unexpired term.

In addition to the show project, action

was taken looking toward a reduction of the freight rates on bicycles and motorcycles. At present, this merchandise is classified as one and a half times first class, which rate was fixed by the General Freight Association at a time when bicycles were selling at from \$100 to \$150 each, and a strong effort will be made to have the rate reduced to conform with present prices. The following committee was appointed to undertake the work are: Harry Walburg, Miami Cycle & Mfg. Co.; W. F. McGuire, Consolidated Mfg. Co., and F. C. Gilbert, Pope Mfg. Co.

Matters pertaining to certain jobbers and certain jobbing bicycles were discussed and though marked by considerable animation the discussion was of an executive nature. One addition was made to the jobbing list—the Kelly-Howe-Thomas Co., Duluth, Minn. It is stated, but not officially, that one name was eliminated from the list and one other "laid on the table."

Among the members present were: C. E. Walker, J. F. Cox and F. C. Gilbert, Pope Mfg. Co.; E. S. Fretz, Light Mfg. & Foundry Co.; J. F. Vogel, Gendron Wheel Co.; Percy Pierce, Pierce Cycle Co.; Harry Walburg, Miami Cycle & Mfg. Co.; W. F. Remppis, Reading Standard Cycle & Mfg. Co.; F. I. Johnson, Iver Johnson Arms & Cycle Works; F. C. Finkenstaedt, National Cycle Mfg. Co.; W. F. McGuire, Consolidated Mfg. Co.; I. Schwinn, Arnold Schwinn & Co.; W. G. Schack, Emblem Mfg. Co., and D. P. Harris.

The launching of the cycle show project was the only business of a general character transacted at the meeting of the Cycle Parts and Accessories Association, which was attended by the following: W. H. Crosby, The Crosby Co.; C. A. Persons, Persons Mfg. Co.; H. S. White, Shelby Steel Tube Co.; W. J. Surre, Corbin Screw Corp.; R. D. Webster, L. Whittier and J. E. Morrow, Eclipse Machine Co.; D. L. Spraker, Kokomo Rubber Co.; D. S. Troxel, Troxel Mfg. Co.; E. G. Hill, Worcester Pressed Steel Co.; L. M. Wainwright, Diamond Chain & Mfg. Co.; W. H. Graham, New Departure Mfg. Co.

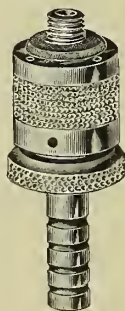
The next meeting of both the Cycle Manufacturers' Association and the Cycle Parts and Accessories Association will be held in Buffalo on the Second Tuesday in March,—the 13th.

Sherman to Leave Reading Standard.

George W. Sherman has tendered his resignation as sales manager of the Reading Standard Cycle Mfg. Co. to take effect February 1st. Meanwhile his lightning rod is up and as there never is any doubt concerning the quality of energy and earnestness which he puts into his work, Sherman should not long remain disengaged. He certainly has added lustre to the Reading reputation during his term of service there.

The Pump Nipple That Can't Leak.

D. P. Harris, the well-known New York distributor, who possesses the reputation of knowing a good thing when he sees it, has annexed to his line the Evertight pump nipple. This is one of those little things which are designed more particularly to save time and trouble in inflating tires with a foot pump. It consists of a nipple threaded to fit the universal tire valve and having a plain barrel about half an inch in length at the upper end of which is a small knurled thumb screw threaded into the barrel and locked in such a way that while it may be



backed out part way, it cannot be entirely removed. The usual tube over which the flexible hose from the pump is secured extends into the barrel and is loosely attached ordinarily so that the barrel may be turned independently of it. When the knurled screw is turned up, however, the pressure which it exerts forces the end of the tube connection into a seat within, making a perfectly tight joint. Thus when the pump is to be applied to a tire, the thumb screw is first backed off, leaving the barrel free to turn about the end of the pump hose, while the nipple is being screwed into the tire valve. Afterward a half turn of the thumb screw serves to seat the tube connection. The device, as the accompanying illustration shows, is neatly made either in brass or steel, and should prove a good time-saver as well as guaranteeing a good connection between the pump and tire at the time when it is most needed.

To Renew Worn-out Files.

The latest application of the air and steam blast is in the rejuvenation of worn-out files, says the Scientific American. A piece of portable apparatus has been recently introduced as part of the equipment of the workshop by which ninety per cent. of the discarded files of the shop may be reclaimed at a trifling cost. Furthermore the file is capable of being sharpened in this manner from four to six times. The device is a comparatively small one, somewhat like a forge in appearance, and having a hood. Under the latter is a rack for holding the file which is to be operated upon. The jet, which may be air or steam, or a combination of both, is laden with some abrasive and it strikes the file at an angle of from fifteen to thirty degrees. In this manner the blast acts upon the back or sloping

edge of the teeth. The abrasive material falls into a pocket containing water and is drawn from this receptacle and used over and over again until it becomes broken up into such fine particles that it floats off in the overflow of water. The cost of this renewal is said to be one-tenth that of a new tool. Hack-saw blades may be successfully treated in the same manner.

To Make Old Saddles New.

Motorcyclists and others using the Persons motorcycle saddles are not asked to throw away their old seats and buy the new, as the Persons Mfg. Co., Worcester, Mass., has prepared a 1907 renewal set which will convert the old saddles into the latest thing. The set is easy of application and consists of a tension spring, hinged to a tension plate, double front springs of heavier wire than formerly and riveted to the tension plate, a truss block, screw and lug, a set of trusses, and a new and complete clamp. The new trusses are about 3 inches longer than the old set, which shortens the lower arms of the front springs just that much and consequently makes the springs many times stronger and permits the saddle to be lowered considerably, which latter is in the nature of an improvement that will appeal to a not inconsiderable number of motorcyclists.

When Wheels Are Out of True.

It is a fact readily appreciated that the apparently small matter of keeping the wheels properly trued, has more than a little to do with successful tire maintenance. The wheel which is running "out," is causing the load of the machine to vary upon the tires instead of running perfectly even. If the wheel is out to one side, the load may be considered as merely shifting about on the tread. When the wheel is off its center, however, or has a series of "hubbles" on its circumference, the result is that the load is being thumped along instead of being carried uniformly, and that the tire is receiving a series of destructive and by no means light hammer blows, the frequency of which depends upon the rate of speed and the quality of the road.

Davidson in a New Factory.

The Harley Davidson Motor Co., Milwaukee, has taken possession of its new factory and with its increased output, it naturally purposes making an aggressive bid for motorcycle orders during the current year. As the only American machine employing a clutch, the Davidson scarcely can fail to receive the increased attention that is sought.

To Make Motorcycle Belts.

The Norwich Belt Mfg. Co., Chicago, are making ready to market a belt for motorcycles. As belt making is their specialty, this addition to their product is pretty certain to be in the "all right class."

CONNECTING ROD REPAIRS

Methods of Straightening Bent Rods In a Way That Will Avoid the Usual Subsequent Troubles.

Next to a broken crank shaft, probably the last piece of misfortune which the motorcyclist may expect to befall him is a bent or broken connecting rod. Unlikely though it may be, however, the reputed perversity of the gasoline motor would not be asserting itself according to its wont unless the "frozen" piston or the overheated bearings, brought about just this difficulty once or twice in a lifetime. Dependent upon whatever may have been the primary cause of the difficulty, the rider so afflicted may either walk home or repair the motor at the nearest wayside shop equipped with a few machinists' tools. The broken rod is beyond repair, of course, but one which is merely bent out of line can usually be straightened in a short time. The process is simple enough in theory, and in practice requires merely the exercise of considerable patience coupled with a small amount of handicraft.

The first thing to be done is, of course, to dismount the motor entirely and examine every part to make sure to what extent damage has been done. If there are no flaws in the rod at the bent or twisted points, it may be assumed that it can be put right without more ado. Before spending any time upon it, however, it is well to make sure that in case it can be corrected satisfactorily, the remainder of the machine will be in running condition. This being done, the rider may proceed to straighten the rod as best he can with the facilities which are available.

This can most readily be put straight by hammering on a solid iron face, such as the face of the anvil. After the rod itself is straightened, it will be necessary to see whether the two bearings—the big and little ends—are parallel, and in the same plane. This is best ascertained by taking two lengths, about 12 inches each, of steel turned straight and true and of the right size, just to fit the big and little end bearings respectively. They should be pushed through so that half projects on each side, and they are quite tight and firm. They may be used not only for testing the bearings, but also for setting them straight. For this purpose it is first important to see that the two test rods are in the same plane. This can be done in two different ways. One is by sighting and the other is by actual measurement.

In following the first method the connecting rod should be laid on a surface plate with the rod at one end lying parallel with the surface of the plate. It can be propped up in this position by two blocks

of known and equal height. The other end of the rod should be propped up by a central block of metal, which will hold the rod approximately at the same height from the surface plate as the rod at the other end. This block should support the connecting rod and not the test bar. If the two ends of the latter are the same height from the surface plate, the two bearings are then in the same plane. If they are not, the connecting rod can be twisted in the vice until they are. When examination shows them to be equal distances from the plate while the ends of the other rod are equal distances from the plate, then the two bearings are in the same plane.

By sighting along the two test rods, the same results may be obtained, but it means a careful workman and a good and accurate eye. The trained eye, however, will soon determine when the two rods are in the same plane.

Having got the bearings in the same plane, it next becomes necessary to see that the bearings are parallel with each other. This can be best done by measurement across from the ends of the two test rods. Each should measure the same distance apart at the ends of the rods.

This will ensure that the bearings in the rod are both parallel and in the same plane, but it will not determine whether they are not out sideways, that is to say, whether a line drawn through the center of one bearing and at right angles to it in the plane in which the bearings lie will cut the other bearings exactly in the middle. If it does not do so, trouble will be set up by the cross bindings of the two bearings.

The best way to test for this is to take a straight edge and lay across the face of the biggest bearing and measure the amount of its offset from the face of the smaller bearing. This should be tested on both sides, and the amount the straight edge leaves on either side of the bearing should be equal. If it is not so, the connecting rod should be bent with a very slight double set so that the parallelism of the two bearings is not disturbed. All these tests for the parallelism of the bearings, the laying of them in the same plane, and their distance edge to centre of the rod should be checked before assembling again, otherwise trouble from overheating is sure to ensue.

Why Coaster Brakes Require Care.

It is well to bear in mind that the coaster brake mechanism of a motor bicycle sees a great deal more service than one which is mounted on an ordinary bicycle. On this account it should be seen to more frequently than is commonly done with a bicycle hub. It should be kept clean and properly adjusted, and above all, it should be dismounted and inspected for breaks or signs of wear, at the very first indication of trouble. Its good action is absolutely vital to the safety of the machine.

KEEPING THE JOINTS TIGHT

Leaks May Easily Be Prevented By the Use of Proper "Dope" for the Screw Threads.

Not a little difficulty frequently is experienced in keeping the joints of the gasoline feed-pipe from leaking. As a matter of fact, however, this should not cause any serious trouble provided only that the piping is properly designed, and that it is jointed with a suitable sealing compound.

As to the first of the two conditions, it goes without saying that the pipe should be long enough so that a proper amount of "slack" is provided to allow for working between the motor and the tank. To this end a coil, or at least a liberal bend should be provided somewhere in its length. For making up the joints, while the use of red lead is common practice, and leaves nothing to be desired where a permanent joint is to be considered, for work of a more temporary nature such a joint when broken is apt to give trouble when an attempt is made to renew it. In order to do this every portion of the threads should be thoroughly cleaned of all traces of the old paint, and a layer of perfectly fresh material substituted for it before the two parts are set together again.

A far better "dope" for the purpose is one composed simply of flake graphite and oil mixed to a thick paste. The graphite in itself being a perfect lubricant, permits the parts to be set up as far as the thread will permit and with the least tendency to straining the permanent connections at tank or carburetter, while the oil, which serves merely as a vehicle for the uniform disposition of the graphite, is squeezed out from between the surfaces and practically eliminated in making up the connection. More than this, a joint so made, never becomes set in the way a lead joint is apt to be, but may be opened at any time as readily as it was put together. In order to insure success in its use, however, care should be taken to see that the parts are a good fit, the threads perfect and not crossed, and the two ends which are connected perfectly free to be drawn into line when the connection is made.

Sources of Tire Trouble.

It should be borne in mind that the greatest sources of tire trouble are overloading and overspeeding. The rider ought to shoulder a portion of the blame when his tires begin to go wrong and persist in doing so. "Tire luck" is one thing, but persistent tire troubles giving rise to a long succession of delays by the roadside are chargeable to the rider and his methods of handling the machine quite as much as to the machine or the tires themselves.

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To Facilitate Matters Our Patrons Should Address us at P. O. Box 649.

NEW YORK, JANUARY 19, 1907

The Prospects for a Cycle Show.

It is one of several happy argueries that the Cycle Manufacturers Association and Cycle Parts and Accessories Association jointly have undertaken to discover whether or not a cycle show during 1908 is feasible; of its desirability there is no room for question.

There are few if any manufacturers whose business did not show an increase during the past year and all of those who attended the association meetings in New York this week agreed in the statement that initial orders already in hand indicate an even more gratifying state of things during the current twelve-month. There no longer seems room to doubt that the industry actually has recovered strength and tone. If slow, it is none the less sure and that sort of growth is better for all concerned. Nor can there be doubt that a cycle and motorcycle show will not merely assist the recovery but will do much to fix the fact in the public mind.

The coaster brake, the two-speed gear and the recurrence of truss frames all have come about since last there was a cycle show worthy of the term. This display and the exploitation of the special features

of particular bicycles afford ample material on which such an exhibition may feed while the bounding interest in it will make of the motorcycle the drawing card. There are so many appurtenances carried in the train of the power driven machine that with the cycle accessories, a representative show appears easily possible.

It is sincerely to be hoped that the inquiry of the joint trade committee will result in a favorable decision. A show can be made to serve so many good purposes that it is distinctly well worth while.

Small Cars and Motorcycles.

Probably unbeknown to most of them, the situation in the automobile industry is steadily making for the increased prosperity of motorcycle manufacture. The runabout and other types of small car are being lost sight of. Their production has been discontinued by about a score of older makers and few if any of the newcomers are filling the void.

The so-called "big car"—the touring car—appears to be the consuming ambition, apparently because of no better reason than the hunger for the greater profits and the showier business that comes of the more imposing vehicles. "What's the use of wasting time and money on a little thing when there is three or four times as much to be made by selling the big thing"—this appears to be the dominant note of the entire automobile industry of to-day; the exceptions are few and far between. Parenthetically, it is interesting to recall how the reverse of this line of reasoning served the cycle trade some very bad turns. Too many dealers turned from high grade bicycles solely because they figured that it was easier to sell three cheap bicycles in the same length of time required to dispose of one good one and thereby to make greater profit—a species of logic that deceived and "undid" not a few retailers.

However, the "small car situation" in the automobile trade is, as stated, of distinct assistance to the motorcycle interests. The fewer runabouts produced or the more complicated they may be, the quicker will that large part of the public that cannot afford touring cars or the keep of them turn to the motorcycle in either its two or three wheel form. As it is, this public is slowly but surely awakening to the real simplicity and capacity of motorcycles and to appreciate its low cost of maintenance and as the knowledge spreads so will the sale of

motorcycles quicken. There is every reason why this should be the case. Compared with the motor car, the motor bicycle possesses all of those virtues that caused the universe to take up the bicycle itself and made the latter so much more desirable and economical than the horse and carriage.

Cast Iron and the Joy of It.

The fact that the manufacturer of a prominent American motor bicycle has substituted cast iron cylinders for steel ones in his 1907 product has been cause for no small joy in Great Britain. It is a little thing but then Great Britain is a "tight little isle." Practically all other changes made in the American models are dismissed with scant notice or no notice at all; but this item of cast iron cylinders constitutes a delicious morsel that is turned over and over again. For is it not proof the touted superiority of the American motor bicycle was not superiority at all? This substitution of cast iron for steel proves it! It is proof that the "blooming Yankees" are at last following British practice!

In the "tight little isle," the motor makers always have used cast iron and usually lots of it. Generally speaking, the makers in France and Germany and Italy and Belgium have done the same thing. The world over, gas engine cylinders always have been formed of cast iron. There have been exceptions, of course, and if we mistake not, England's most famous motor, the Napier, went the rest of the world "one better" by employing a peculiarly British compromise—a cast iron cylinder with a steel liner. This, however, is merely by way of digression. To return to the main thread, it seems too bad to rob our English cousins of their new found joy; but the fact is that the American who substituted cast iron for steel is not following British practice in doing so. He simply is returning to the use of the metal which he had employed for several years and from which he had departed for a twelve-month only.

Pity the poor promoters of six-day races! Though the gold flows into their coffers what does it profit them when disgruntled riders and reporters seek to make it smell to heaven? The sponsor of New York's last "grind" has had such a cross to bear that to be able to shout "lie" must be a blessed relief, indeed. It is unfortunate that only diluted sympathy can be offered him.

MAGNETO TROUBLES MAGNIFIED

Foreign Expert Points Out How Easily They May Be Remedied If They Develop At All.

"The only function of a magneto is that of being able to furnish at the desired instant an electric spark of sufficient intensity to ignite the explosive mixture at the pressure at which it usually finds itself in the combustion chamber," says S. R. Bottone in the Motor Trader. "Failure to fulfill this requirement is fatal to the successful working of the motor. Such failures can arise from two or three distinct and separate causes, and these we propose to study, to show how to localize and how to remedy. The first step to be taken is to ascertain whether any dirt or grease, or a mixture of both, has got between the faces of the contacts lying between the moving portions of the insulated armature shaft and the spring-compressed stud which receives the armature current and transmits it to the plug. It will very often be found that a magneto which ceases to give current altogether, or which does so only occasionally, will start working satisfactorily if well washed in benzoline or petrol, so as to get rid of any pasty accumulation of grease and dirt at these points.

"It may be that the magnets themselves have lost power. The weakening of the magnets may generally be suspected if the failures in ignition do not come on suddenly but gradually, and evidence themselves more by occasional misses, especially when the compression is high, than by total failures. An examination of the brilliancy or otherwise of the sparks given at the sparking plug will generally give a sufficient indication to the observer as to the condition of the magnets; but this can be more satisfactorily and accurately tested by taking the armature out bodily and placing a slab of soft iron across the poles of the magnets. If in good condition, these magnets should be able to sustain a weight of from 20 to 30 pounds suspended to the iron slab, the exact weight depending on the size and number of magnets constituting the field of the machine. Should it be found on trial that the magnets are less powerful than the lower limit given, it will be advisable to re-magnetize them. In order to effect this, it will be necessary to detach the magnets from the pole pieces, by unscrewing the side screws, great care being taken to mark them, so that each individual magnet composing the set can be afterwards replaced in exactly the same position as it originally occupied. Each magnet must now be tested for polarity, by holding it at a little distance from a freely-suspended magnetized needle (compass), and each north pole (that which attracts the south

pole of the said compass needle) marked distinctly with an N.

"To magnetize these separate magnets, the operator, if he have access to a continuous current dynamo, cannot do better than hold these marked (N) poles, one by one, against the south pole of his dynamo whilst running, being very careful not to allow the magneto to be pulled by attraction towards the armature channel, which might be productive of serious injury either to himself or to the dynamo. As vibratory motion facilitates the imparting of magnetism to steel, the operator whilst performing this will 'clank' the north pole of his magnet against the S pole piece of the dynamo, when he will find, after repeating this movement for a few times (say, some minutes), that the magnets have acquired their full amount of magnetism. It is understood, of course, that the dynamo should itself be of sufficient power; one, say, capable of supplying from 20 to 30 16-candle-power lamps. Each magnet as thus magnetized should be moved from the vicinity of the dynamo, and placed on a distant wooden bench, with a large piece of soft iron (an armature) laid across its poles. Each magnet should have its own separate armature, and not be placed in proximity to another magnet for fear of reversing its polarity.

"Should the rider not have access to a dynamo, he must make himself a powerful horse-shoe electro-magnet, capable of lifting about 1 cwt. This he can do by procuring a round bar of soft iron, about 16 inches long and 1 inch in diameter, and bending it into the shape of a letter U, having parallel limbs about 2 inches apart. Each limb should be wound tightly from within $\frac{1}{4}$ -inch of one extremity, to where the bend commences, with about 2 pounds of No. 18 double cotton-covered copper wire, layer upon layer, evenly and smoothly, the starting and finishing ends of the wire being firmly tied to the iron core by means of strong silk twist. The rider will find that, since No. 18 runs about 45 yards to the pound, and can be wound as closely as 10 turns to the inch, that he can get about 64 turns in the 4-inch space of the straight portion of the limb, so that if he winds on 13 consecutive layers of the same wire in one continuous length, he will get 90 yards, or 2 pounds, on each limb. He must remember that, in order to be able to couple this electro-magnet to a convenient source of electricity, he must leave at the starting end 3 inches or 4 inches of the feed wire free; and on arriving at the end of the last layer he must not sever the wire, but cross over to the opposite limb, and there start winding that in the same manner, and with the same number of layers as he employed in limb number one, but with this difference, that he will now wind in the opposite direction. This means that if the winding were viewed from the end of the poles, the crossing wire joining the two

limbs would take the shape of a letter S. For this reason it is well to start winding the first limb at the extremity farther from the bend, which will bring the thirteenth layer close to the bend; this will enable the operator to start winding the second limb close to the bend, and to end the thirteenth layer at the extremity of the second limb, where he will fasten it off by means of a piece of silk twist as before, leaving 3 inches or 4 inches of the wire for future attachment. In order to ensure good insulation and to protect the wire covering from mechanical injury, it is advisable to give the coiled wire a coat or two of good thick shellac varnish.

"To use this, it is coupled up to a 4-volt accumulator by the two wire projections (the ends of which must have previously been bared of their covering) and the polarity carefully noted by means of a compass (this polarity will vary according to which of the two wires the positive terminal of the accumulator is attached). The poles of the magnets to be re-magnetized are then placed in contact with the poles of the electro-magnet, great care being taken that the contrary poles must face one another, otherwise the magnets, instead of being strengthened, will be weakened. It will facilitate the operation of magnetizing if the magnets be frequently struck with a light hammer while under the influence of the electro-magnet, and also if the magnet be suddenly jerked off the poles of the said electro-magnet and as suddenly replaced. No exact time can be given for this operation, as it will depend entirely upon the receptivity of the steel; but a rough test of the portative power of the magnet will give an idea of the success of the operation. When the magnets have been remagnetized they should be immediately replaced in their old position (bridging the pole pieces), carefully screwed up, and, pending other operations, protected by a keeper.

"A third cause of failure in magnetos is due to either a break in continuity in the wire leading from the armature winding to the stud projecting through the bearing, or to a flaw, a leak, or a breakage in the insulation between the hollow spindle and the said wire, which carries the current from the armature to the sparking plug. To verify and remedy such a defect, it will be necessary to remove the front and back plates from the magneto, take out the armature, remove the brass head on the spring-contact side, notice whether the wire itself is broken (in which case a fresh piece should be soldered on and re-connected), or whether the ebonite insulation is itself defective, cracked, burnt, etc., at any point, when it must be replaced by a new piece of ebonite turned to fit accurately in the hollow spindle and drilled through its center longitudinally to admit the passage of the wire, which is then re-connected to its insulated stud and replaced in its original position."

HOW VEEDER HIMSELF USES THEM

Inventor Employs Two of His Cyclometers on His Bicycle—How the Odd One is Applied.

Although he owns two motor cars, they have not weaned C. H. Veeder, inventor of the Veeder cyclometer and president of the Veeder Mfg. Co., Hartford, Conn., from his bicycle, a chainless; he uses it for nearly all short trips in preference to either of his cars.

It goes without saying that he uses the Veeder cyclometer to register his mileage. In fact—and this is the point of the story—two Veeder cyclometers are to be found on his machine, as Mr. Veeder is not satisfied to know merely the total distance covered but likes to know just how much he actually pedals and how much he coasts with his coaster brake. This information his two cyclometers give him. One is mounted on the front fork in the usual way while the other is mounted on the bottom bracket of the frame by means of a special flange clip, the striker which engages the star wheel of the cyclometer being attached to the crank. This latter cyclometer is geared up to correspond with the gear of the cranks, so that it registers the mileage correctly from the revolutions of the crank to which the striker is attached. It only keeps track of the miles covered with the pedals and cranks in motion, while the forward cyclometer, of course, keeps the total mileage.

It will be seen that the difference in mileage of the two cyclometers will show the number of miles traveled without pedal action, that is in coasting.

To register the mileage correctly from the crank requires a special gearing inside the cyclometer itself, since each revolution of the crank represents several revolutions of the bicycle wheel. If, for instance, a 96-inch gear is used, it is necessary to have a cyclometer for the crank that would register correctly for a 96-inch wheel instead for the ordinary 28-inch wheel. Because of the great number of cyclometer gear combinations at his disposal, Mr. Veeder had no difficulty on this score.

In the course of a season the coasting mileage reaches figures in the hundreds, according to Mr. Veeder's records.

To Put Mufflers to the Test.

In order to determine conclusively the best methods of silencing small internal combustion motors, the Auto Cycle Club, of Great Britain, will hold a muffler competition during next month. In making their final decision the judges will take into account the relative amounts of back pressure, noise, weight and strength, facility of cleaning and maintaining the various arrangements submitted, and, of course, the

efficiency in suppressing the noise of the exhaust. Each muffler will be tested on a $3\frac{1}{2}$ horsepower machine which will be used throughout the trials, and the conditions will be standard in each case. Drawings of devices entered in the competition must be submitted to the secretary of the club in advance. In accordance with the results obtained, certificates will be awarded to entrants furnishing successful mufflers.

Big Motorcycles for Beach Carnival.

The three motorcycle events that are to form a part of the Florida speed carnival on Ormond beach, Jan. 22-26, finally have been sanctioned by Roland Douglas, chairman of the Federation of American Motorcyclists' Competition Committee, but not as "free for alls," as they were originally programed. Knowing that several "freak" machines were in prospect, and not only did they give standard machines no show to win but that any records they might create would not stand as records, Mr. Douglas ruled against any such classification and the promoter finally saw the light. The one and ten miles events were therefore sanctioned as for 110-pound machines, which international weight limit will give the performances official standing everywhere; the third event has been made a special match race between the "big fellows" and while they may go fast, the glory of going will be the chief reward.

It is not definitely known exactly which machines will compete but easily the most sensational will be the eight cylinder Curtiss which has been specially built for the occasion, the cylinders being disposed in V-shape. It has 26-inch wheels, is driven by shaft and bevel gear, has a 65-inch wheel base and is rated at 40 horsepower. It is the most powerful motorcycle ever constructed. It is, however, away over the international limit, tipping the scales at 275 pounds.

Two four cylinder M-M machines also are probable competitors and W. H. Wray, of Brooklyn, N. Y., has imported a big French racer with which he probably will appear on the scene.

In the automobile class, the calibre of the extras is away below that of previous years. Only one foreign speed car is entered and perforce the interest in the carnival is not up to the usual pitch. The situation is one, however, that may permit the big motorcycles, however abnormal, to become the real features of the week, provided, of course, they attain the phenomenal speed which is expected of them.

McFarland Loses in Straight Heats.

Floyd McFarland succumbed to Jacqueslin, in the first race in which he reappeared in Paris—a three heat match, on the 13th inst. The one-time French champion made a clean sweep. He won the first heat, 1,000 metres, in 1 minute $43\frac{3}{5}$ seconds, 2,000 metres, in 3 minutes $40\frac{3}{5}$ seconds.

WEINTZ GETS OFF AT BUFFALO

Though His "Getting Off" Was Rather Violent Another Visitor Beat the Buffalo Armory Talent.

Said Louis Weintz,
About to go
Upon a trip to Buffalo,
"If I sit tight,
And play it right,
My rising star will loom up bright."

In Buffalo
Things didn't go
As smoothly as they should, you know.
His star that night
In downward flight
Looked like a piece of anthracite.

Buffalo's sport of armory racing had another good whirl at the 74th Regiment games, Saturday night, Jan. 12th. "Eddie" Delling, whose fast going at the 65th Regiment armory the previous week had won him the Buffalo-invented title of "ten-lap champion," was present and voting, but his balloting was not rapid enough for him to get the honors. Louis J. Weintz, of the 22nd Regiment, New York City, was let off at Buffalo to take Delling down but he was not the man that did it. In the third heat of the one-mile handicap he took a tangent off the flat floor course and ran directly into a big crowd, making men and women scatter. He broke his bicycle, but no one was hurt. His was not the only accident, as spills were frequent. Devine and Gittere had a smash-up and fell, in the fourth heat of the handicap, both being badly bruised.

Fred Schudt, of the Bunker Hills, took the two-mile lap race away from Delling, who had to be content with second. The crowd was kept on its feet throughout the race, each lap showing spirited dashes and lively jumps for front position.

T. Burke, with a 110-yard lead, won the mile handicap, after a brilliant struggle and close finish with J. Gittere, 110-yards, who finished second. Delling, Schudt and the others had worn themselves out in the two-mile lap affair and with their bruises from falls and an excessive handicap, had no chance from the start.

The summaries:

Two-mile lap race. First four men in each lap in each heat except final score, 5, 3, 2 and 1 points, respectively. Two men with highest number of points in each heat to qualify for final. First heat—A. Mercer, 65th R. A. A., 63 points; W. W. White-lock, 74th R. A. A., 58 points. Second heat—E. Delling, Ariel A. C., 74 points; A. Fischer, Bunker Hills A. C., 52 points. Third heat—J. M. Tanner, Ariel A. C., 67 points; J. E. Stiglmeier, Ramblers B. C., 50 points, and R. J. Kooner, unattached, 50 points, tied for second. Fourth heat—F. Schudt, Bunker Hills, 79 points, 1; W. E. Bauman, Ariel A. C., 46 points, 2. Final heat—F. Schudt, Bunker Hills, 59 points;

E. Delling, Ariel A. C., 35 points; W. W. Whitelick, 74th R. A. A., 33 points. Time, 4:43½.

One mile handicap—First and second in each heat and third in fastest heat to qualify for final. First heat—F. Schudt, Bunker Hills A. C., 15 yards, 2; C. E. Mortimer, 74th R. A. C., 75 yards. Time, 2:15½. Second heat—J. E. Gittere, G. Y. M. C. A., 110 yards, 1; J. E. Newland, unattached, 105 yards, 2; J. B. Devine, Bunker Hills A. C., 60 yards, 3. Time, 2:14. Third heat—T. Burke, Ariel A. C., 110 yards, 1; W. A. Bauman, Ariel A. C., 25 yards, 2; E. Arenz, Ariel A. C., 40 yards, 3. Time, 2:16½. Fourth heat—H. J. Young, Ariel A. C., 100 yards, 1; John Kraus, Ramblers B. C., 120 yards, 2; G. Schell, G. Y. M. C. A., 70 yards. Time, 2:15½. Final heat—T. Burke, Ariel A. C., 110 yards, 1; J. Gittere, G. Y. M. C. A., 110 yards, 2; J. B. Devine, Bunker Hills A. C., 60 yards, 3. Time, 2:13½.

What Dust Does to Horses.

While the antipathy of the average horseman to all things which run on rubber tires and without horses frequently serves to blind him to the intrinsic advantages to be derived from the system of universal good roads, which every cyclist instinctively desires, if the matter is put before him in the proper light there should be no difficulty in enlisting his services in the cause which is of universal benefit to mankind whatever happens to be its favorite method of conveyance. Here is a telling argument brought out recently by a writer in the Good Roads Magazine, which ought to be powerful enough to convince even the most obdurate of skeptics that the dustless highway is something of vital importance to him and for reasons purely personal.

"A distinguished breeder of horses in Kentucky, who has kept careful statistics, asserts that tubercular diseases are spread among horses by dust from highways," says this authority. "Horses are less protected than man is from the evil effects of inhaling dust. In Fayette County, Ky., where most of the roads are oiled, even on the large stock farms, the horses have become almost entirely free from this class of disease, and hoof diseases have also completely disappeared."

More Motorcycles for Trouble Men.

The Chattanooga (Tenn.) Electric Light and Power Company is installing three motorcycles for use by their "trouble" men. These machines supplant five teams and wagons, and their necessary drivers, etc. In their stead five trouble men with the three mounts relieve each other so that a force is constantly on duty during the entire twenty-four hours of the day.

"The A. B. C. of Electricity." Price, 50c. The Bicycling World Company, 154 Nassau Street, New York City.

ADEE GETS THE MILEAGE MEDAL

Youngster Proves Himself Possessed of His Family's "Cycling Blood"—The Others on the Long List.

Coming from a cycling family, it is not surprising that D. D. Adee, of Brooklyn, N. Y., the son of his father, who is president of the organization and also of the National Cycling Association, should prove the winner of the 1906 mileage contest of the Century Road Club Association, the result of which just has been announced by J. W. Johnston, chairman of the road records committee.

Young Adee heads the list with a record of 9938 miles, which includes 22 centuries, one of them a "double," which makes his score 12538 points. H. Heldman was the runner-up. Although nearly 1500 miles behind Adee in respect to mileage, Heldman placed 35 centuries to his credit, which brought his score in points to almost within hailing distance of the winner. The list in full follows:

	Miles	Centuries	Points	Not in Comp
Adee D. D.	9938	22	12538	
Heldman H.	8574	35	12154	
Paulson J. F.	6974	35	12074	2
Lewin A.	6974	33	10274	
Fee J. E.	5436	18	7736	
Walters M. S.	5059	14	6459	
Olsen J. A.	2100	21	4200	
States E.	2100	21	4200	
Sweet G. S.	1975	18	3775	
Hawkins J. B.	3262	5	3762	
Lyman Col.	2504		2504	
Larsen F.	1448	3	1748	
Minterman A. H.	1023	3	1323	
Due A.	1115	2	1315	
Castles J.	1114	2	1314	
Cadawallader H.	1052	2	1252	
Jefferies B.	1118	1	1218	
Lewin I.	897	3	1197	
Herman R.	766	4	1166	
Woodin M.	1016		1016	
Adee D. M.	500	5	1000	
Jacobs W. F.	723	2	923	
Mayo H. T.	671	1	871	
Larsen Mrs.	713	1	813	
Burch C. E.	400	4	800	
Glunz G.	400	4	800	
Oppenheimer W.	769		769	
Johnston J. W.	667	1	767	
Johnson W. C.	474	2	674	
Adee C.	300	3	600	
Friebe R.	300	3	600	
Strauss J.	300	3	600	
Hulst G. A.	286	2	486	
Castelli J.	200	2	400	
Dreyer H. F.	200	2	400	
Yasillo J.	200	2	400	
Debold M.	200	2	400	
Baker T.	100	1	200	
Bauldauf F.	100	1	200	
Corino W.	100	1	200	
Eisler A. B.	100	1	200	
Harrison S.	100	1	200	
Hinck H.	100	1	200	
John W.	100	1	200	
Kuenzler G. W.	100	1	200	
Ley C.	100	1	200	
Ley W. G.	100	1	200	
O'Connor A.	100	1	200	
Olufs E.	100	1	200	
Rocklitz L. B.	100	1	200	

Steinhauser D.	100	1	200
Thomas P.	100	1	200
Van Dyke R. A.	100	1	200
Wollenschlager	100	1	200
Johnston Mrs.	163		163
Underhill W. H.	156		156
Breit J.			1
Gill H. Jr.			8
Gill H. Sr.			27
Reiske M. J.			1
Total	75947	294	39
Grand Total Miles, 92791		Centuries, 342	

Root and Fogler on the Rollers.

The National Athletic Club of Brooklyn ran their weekly home trainer races on Wednesday, the 16th inst., and had as their feature event an unlimited pursuit race between Eddie Root and Joe Fogler for a side bet of \$50. Whether this "fifty" was in confederate or wooden money was not stated. Evidently it was the latter as they split it.

The first event, a mile match between Owen J. Devine, of the Nationals, and Walter Goerke, of the Park Circle club, afforded a good finish although the first lap was not of the hair-raising order. Goerke took the lead at the start and kept it until the sprint, when Devine came with a rush and won out by three inches. Time, 1 minute 31 seconds. Louis J. Weintz and "Hank" Cranston then "had it out" for a mile. The race was close all the way, Weintz winning by an inch, but he had to ride all out to do it.

It took Root 3 1-16 miles to catch Fogler in their pursuit race after Fogler had gained about half a lap on him. The roller Fogler used has a bad habit of tightening and on Wednesday night it tightened after the men had ridden about a mile. In the restart Fogler started out at a fast pace and gained a foot the first half mile and increased this to almost a half lap when he started to ride groggy and Root gradually overtook him and passed him at 3 1-16 miles. Time, 4 minutes 16 seconds.

Darragon Rides Up to His Title.

On December 27 last Louis Darragon, of Paris, rode up to his title of champion pace follower by beating Thaddeus Robl and Parent in a sixty kilometres (37 miles 500 yards) paced match at the Velodrome d'Hiver, Paris. Parent, who the week before had lowered the colors of both Hall and Robl, did not make as good a showing as had been expected, coming in a bad third.

Pig That Proved High Priced.

In Ireland, where the pigs roam the highways as freely as do dogs and hens on "this side," the courts have struck a blow at Irish freedom by awarding a cyclist \$75 as balm for being thrown by colliding with a porcine rover. There, as here, it is illegal to permit live stock to wander on the highways but the law is so rarely applied that it creates comment when cases of this sort arise.

SCANDAL FOLLOWS THE SIX-DAY

Root and Fogler Accuse Promoter Powers of "Double Crossing"—Powers Shouts "Lie" and Produces Papers.

"Eddie" Root, co-partner of Joseph Fogler in the team which won the recent six-day race in Madison Square Garden, has again stepped into the limelight a few rays of which are also falling on Joseph. Patrick T. Powers, the promoter of the race, also is in the limelight but he was either forced into it or rushed into it as a matter of self-defense.

The light was turned on late last week when the daily papers gave to the public a long tale of how Root and Fogler had made a demand on Powers for \$1,500 which they alleged he had promised them "if they would not gain a lap during the race." Most of the talking was put into Root's mouth and he was made to say also that J. Frank Galvin, who for a time worked in Powers's office and who competed in the race, had been paid to fall in order that lap gaining might be prevented. Powers, of course, promptly and indignantly denounced Root's story as a lie and defied either man to prove that he was "a party to such an infamous contract."

"When Root and Fogler were receiving the money due to them for winning the race on the Monday following the finish of the contest, Root said he thought he was entitled to something additional on account of winning the race," said Powers. "I told him that I could not entertain such a proposition because it would be unfair to discriminate against the other riders. I produced his agreement and paid him every cent of the money I guaranteed to do. He left the office apparently satisfied.

"I was very much surprised when he came into my office this morning and demanded more money for winning the race. His demand was not for agreeing to fake the race, but because he had won. I refused his request and finally ordered him out of my office under threat of ejectment. I want to reiterate I was not, nor have I ever been, a party to any fake in connection with the enterprises in which I have been interested."

Later Powers put the burden of proof on the two men by displaying receipts "in full" for \$1225 signed by each rider and also by flashing the more or less famous document signed by most or all of the other contestants in the race itself when newspaper charges of fake were flying thickest. This paper denied the charges emphatically but most of the signatures were said to be in the same handwriting and not all of the riders' names were spelled correctly.

Fogler, however, is specific and makes it appear what he has since stated several

times—that the \$1500 was offered not to promote a fake but to keep he and his partner, Root, in the race. After the terrific spill on Thursday morning of the race, there was some mad sprinting and many laps were gained. When they were not allowed, Powers had several "strikes" on his hand. The riders involved threatened to quit then and there. Root and Fogler were of the number. When Powers was found he hurried to them, and, according to Fogler, offered them first \$1000 and then \$1500 if they would continue in the race. They agreed and it was this sum of \$1500 that they claim is due them. Fogler said Powers did not deny it when they first called on him for it but put them off until last week when the story leaked out. The men maintain also that Powers did not threaten to throw them out of his office, as he asserts, but rode with them in an elevated train, in which the discussion was continued. Not all of the talk was in whispers and a reporter who chanced to overhear enough of it to "make a story" followed it up and the scandal resulted.

Fogler's original statement to which he adheres is as follows:

"We took Powers at his word and he gave us the double cross. I do not intend to sue, as that would do very little good. I do not care so much about the money, but there are very few six-day cycle riders left, and he needs us badly. When he comes around next winter to hold his six-day race he's got to show us in black and white. Powers made the promise of \$1500 to Root and myself all right, and he knows it. The promise was made at the time of the threatened strike during the latter part of the race. We, that is, Root and myself, had made about three laps on the other riders early Thursday morning. I looked up at the score board and found the score of all the leaders was even. Matt Downey joined us in a protest. Powers was not in the building at the time, but later came to us and asked us if we would agree to ride if he fixed the matter up with Dorlon. This we refused to do. He then came over to us with Oliver Dorlon's father and offered us \$1,000 to continue, with the understanding that, to keep up interest in the race, we were not to attempt to gain a lap on the other riders, as Powers said he thought it would hurt the gate receipts many thousand dollars if we did so. We refused the \$1,000, and Powers came back with a second offer of \$1,500, which we accepted. He said a written agreement was unnecessary, but pointing to Dorlon he said: 'I give my word between Elk and Elk.' He refused to make good when it came to settling time."

The riders say it is not the first time Powers has failed to keep faith with them and point out that two years ago when Walthour "struck" and quit the race he (Powers) promised that never again would the Georgian be permitted to ride in

any of the six-day races. But Walthour rode last month as the world knows and his appearance was the cause of more friction and bad feeling on the part of the other riders than is generally supposed.

Some of the reasons for the terrific and unwarranted newspaper onslaught on the six-day race have also leaked out in the interim. According to one story, Powers, who, if he is not a "tight-wad," certainly has a fondness for the dollar, saw several hundred dollars escaping in the form of newspaper "passes." Although the papers were giving his enterprise pages of good advertising, and the house was being packed nightly, the vision of those escaping dollars jarred on his nerves until he gave an order revoking "newspaper privileges"; also it is said he prohibited the sale in the Garden of an afternoon paper which had given him offense. Forthwith the reporters began looking for flaws and, of course, found them without difficulty; the writers with the most vivid imaginations made mountains out of molehills or of no hills at all and the result was a "pounding" the like of which rarely has been witnessed. It cost Powers dear. It forced him to abandon a projected week of sprint racing in New York and two weeks of the sport in Chicago, which probably would have netted him thousands of dollars.

Where Amateurism is Protected.

They do some things differently abroad. In France, for instance, although not much is heard of the amateur racing man, the effort to have amateurism retain its significance, i. e., that it stands for pure love of sport, is still being made. As a striking example, the French Union has a rule forbidding amateurs to permit the use of their names in advertising matter that may herald their successes on the track. Recently a bicycle manufacturer made use of an amateur's name in advertisements of that nature and, as a result, the rider promptly was suspended. The latter then brought suit against the manufacturer and when it was decided in his favor the amateur was reinstated.

Here's One More "World's Champion."

The honor of being "the world's champion pacer" is claimed by Franz Hoffman, the German. Out of thirty-four different occasions on which he paced riders on the Parc des Princes track in Paris, he led his followers to victory no fewer than thirty times, while in 1903, when in America, he brought home sixty-three winners in eighty-seven events. During the past year he helped Darragon to victory, and then Walthour, the latter eventually beating the former under Hoffman's pacing. Recently he has been pacing Robl. In addition to the well-known riders mentioned, he also has paced Tommy Hall, Albert Champion, and the late Harry Elkes and Jimmy Michael.

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UP THE POTOMAC TO THE FALLS

Trip From Washington Along the Canal Path, That Brought More Excitement Than Was Anticipated.

"For a beautiful but exciting cycle trip let me recommend the Georgetown canal path from Washington to Great Falls, Md.," said the man who takes an out of town spin whenever he can. "If you are in Washington and haven't your wheel along, then rent one so you can take the trip, which to my mind beats any of similar length anywhere else in the country.

"To start with," he continued, "Great Falls, where the Potomac river takes a tumble, is one of the natural wonders of the world, and I could never understand why it was never properly exploited, except perhaps because no trolleys or trains go there. It isn't quite so wide as Niagara and the fall of water may not be so great, but in tumbling, churning, roaring water effects it is even more wonderful than the big show-falls. The rock formations, in big, piled-up masses, are duplicated in few places. In fact, as an objective point for a trip, it is ideal, and it is only some 16 or 17 miles above Washington, as I remember it, making a fine afternoon's run or a day's outing.

"The splendid government military road runs to Great Falls, but that is too ordinary a way to take when a tow path is available. Going by the canal route you have a shorter path, without grades, you are nearer the Potomac river, and you stand a chance of getting into a lively scrap with the canal boatmen, which lends zest to the journey.

"When I took the trip, I went to the Georgetown end of the Aqueduct bridge, where the canal starts, and trundled my machine down a long set of steps, to the tow path. The first five miles in the cool morning air of June was the perfection of bicycling, unmarred, with the beautiful Potomac and its western palisades on my left, and the canal to my right, with high bluffs and banks beyond, covered with flowers and trees.

"Then I saw a canal boat in the distance, but its humble, patient progress did not suggest its excitement possibilities. The boat was being drawn by four sleepy-looking mules, but as I tried to pass them they woke up to jumps and acrobatics of the most violent kind. One mule of the front pair bolted straight ahead, his sudden pull combined with that of the others, breaking the tow line between the boat and shore. His fellow mule had become so mixed in broken harness and tow line that he rolled into the canal with a splash, while one of the rear pair of animals was running down into the tall grass gulches, the fourth mule,

with an uncertain air, trying to decide which of his companions to emulate.

"A lad of about 14 years was driving the mules, and he and I started first to rescue the drowning one. We almost drowned him in getting him out, as when we pulled on the loose end of rope which was on the bank we pulled his feet up and his head down. I then mounted my bicycle and chased the mule that had bolted ahead up the path, and after catching that one, helped the boy corral the other wanderer.

"By that time the boat boss had awakened to the situation and he was on the roof of the boat swearing his head off and promising that as soon as he could get on



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terra firma he would knock my bicycle and myself to glory, etc. But the beauty of the situation was that the boat was in mid-canal and he had to swim to reach me. He made a dive in the mysterious recesses of the canal boat's hold and brought out a long pole with which he began to push the old scow to shore, but it is no easy job to move a canal boat suddenly, and it was some time before he got her coming shoreward.

"When he leaped for the bank, I grabbed my bicycle, made a running mount and sped on, with rocks and oaths falling in a shower at my back wheel. Ahead of me I saw a young giant, evidently with the boat, too, hurrying to catch up with it. I could hear the pursuing boat boss yelling at the Y. G. to stop me, but the latter was not near enough to hear him at that moment and I sprinted past him without interference, though I'll bet he got his from the boss for letting me get by.

"It is against the canal rules to allow bicycles on the path, but nothing is said at the locks if you are careful not to frighten the mules. I made the rest of the way in leisurely fashion. At Great Falls I had a fine meal, Southern cooking that was the

real thing, and then clambered around the rocks.

"On the return trip I left the canal at Cabin John's Bridge, one of the summer amusement places on the way, watched the dancers in the pavilion for a time, and then scorched into Washington by the military road, just for variety."

Effect of Motorcycles in Arizona.

Mesa, as a general thing, is not easily frustrated, and by some has been called rather a quiet, sedate little town, but be that as it may, she has got what is known as a motorcycle craze, says the Phoenix (Ariz.) Republican. Whether it is the noise of a Fourth of July pyrotechnic accidentally set on fire, which appeals to the men who can afford such things or whether it is the idea of exclusiveness which is included in the cost price, is not known. Dr. Palmer, who is the proud owner of one of the concerns, states that spinning along over the desert road at the rate of forty miles an hour is one of the best tonics that can be had. That helps the fad.

Whenever a new machine comes to town the boys, that is the old boys, gather around it and talk—well, they talk just like the little tots do when one of them gets a train of cars that will run when it is wound up. A. V. Redewill came over from Phoenix the other day on one of the tandem kind and took several of the men who make the mare goin this town out for a spin. The result is that he scattered motorcycle microbes all up and down the principal streets. If the company manufacturing these anti-work-your-legs machines does not receive a factory capacity order from Mesa it will be on account of a heavy rain drowning the microbes and making the streets impassable. Morris, the bicycle man, who calls the parts of the machine off by ear, has Dr. Palmer educated up to the technicalities of the thing so that in case of accident he could fall in as first man. Dr. Chandler, who is an understudy, is learning rapidly and may soon get one of his very own. "Wimmin folks" are not the only ones subject to fads.

Postman Miles and His Motorcycle.

W. F. Miles, who carries the United States mail on the California star route on which he has had a contract for years, is making ready to perform the work on a motorcycle. The machine has been ordered and meanwhile the inhabitants are waiting expectantly.

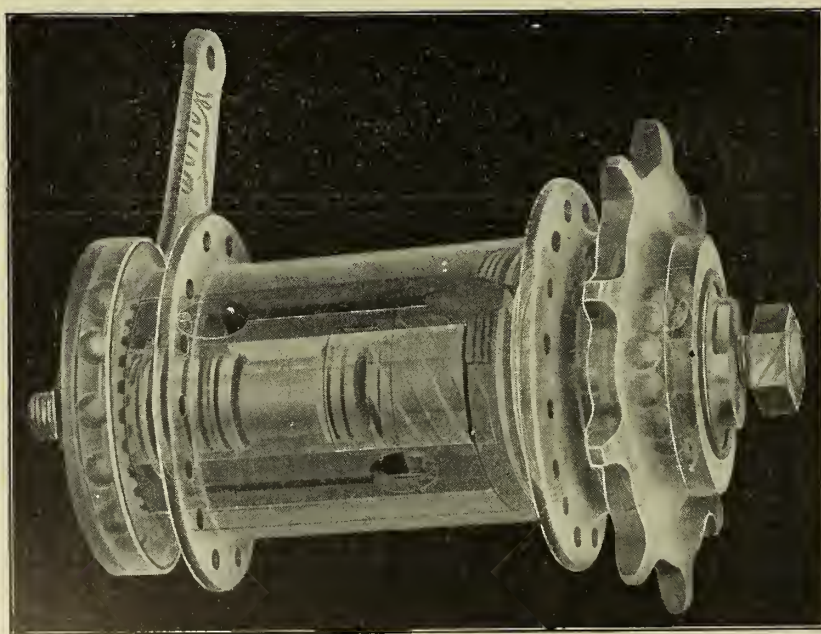
"The speed of the motor bicycle, untamed, is too high for Miles's purpose, so he is having a larger sprocket put on the rear wheel to reduce it," according to a local story. "His running time is three miles per hour, allowed by contract, and he will have his 'bike' geared so as to cover not over six miles an hour, which will give him ample time to hunt bear and deer along the road."

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TO SAN FRANCISCO BY EASY STAGES

PART V—OGDEN TO SAN FRANCISCO

This is Stanley Bowmar's fifth and concluding article describing his motorcycle trip to the Pacific Coast. The first, being the account of his journey from Buffalo to Chicago, appeared in the December 1st issue of the Bicycling World. The second, Chicago to Omaha, in the December 29th issue. The third, Omaha to Denver, in the January 5th issue. The fourth, Denver to Ogden, in the January 12th issue.

After living in civilization and luxury in Utah for a few days to take to Nevada, reputed to be more desolate than Wyoming, was something like having to slide into a tub of ice water immediately after a comfortable hot bath. Leaving Ogden on the afternoon of Wednesday, October 17, I intended to stay the night at a section house mid-lake. I was anxious to see a sunset on the Great Salt Lake. My plans were, however, completely upset by a heavy wind storm, a sort of Mark Twain's "Washoe Zephyr," which blew up out of a beautifully clear sky, about two o'clock. Along with the gale came blinding clouds of dust and sand, and numerous other things more substantial. For an hour or two I took shelter in company with a gentleman on horseback under a hedge. Near dark the storm abated somewhat, and I reached the cut-off which crosses the eastern arm of the lake, 15 miles west of Ogden. By this time it was pitch dark, and I made an effort to "get in" at a solitary house near the road. "Full house" greeted me there, however, and it was necessary to "keep a-goin'" to Bagley, a section house two miles out on the lake, or rather this eastern arm of it.

I could see the headlight of an engine, and took for granted it was at Bagley. There were two lines, the main one and another newly built, and it was this one that seemed to make a bee-line for the headlight. I set to trundling along it. It was rough going in the dark, and my suspicion that I was on the wrong line was soon confirmed by my finding myself at the end of the new track. It was nearly a quarter of a mile of wet salt beach between the main line and the one I was on. Rather than go back I trundled over the soft beach, desperately hard work. When I did reach the proper track, another problem presented itself; How was I to get the machine up the high rocky embankment? The foundation of the railroad over the Salt Lake cut-off, where it is not trestle-work, is rocks, and in the dark it was impossible to secure a firm footing to haul the motor. The Merkel is not a clumsy motorcycle, but that night it seemed a very heavy ton. I had to give it up, leave the machine on the beach all night and walk to Bagley.

All Italians, every one of them. Only the foreman could speak English. I was determined not to walk another five miles to Promontory Point and have to trail back in the morning for the motorcycle.

"Cook House"—I did not know exactly what "Cook House" signified, but expressed my willingness to stay in the place whatever it was. The one fellow who could speak English led the way to a detached shed, where the Italian laborers cooked their meals. In one corner there was a rickety stretcher (sans clothes) and a stove in the center. Rolling up an empty sack for a pillow, I lay down and got a few hours sleep, but after midnight it became so cold that I had to rouse up every hour to rustle firing.

The next morning the spokesman told me that I could get breakfast at Promontory Point, five miles west. No supper and a five-mile walk before breakfast is not one of the planks of my physical culture program, but it was no use kicking. It was not that these fellows from the land of the blue skies were not good natured, but I think it was that they thought their fare too humble. They didn't realize that I was so ravenously hungry that I was considering the possibility of killing a wild duck with a stone and grilling it over a few matches.

In the daylight I found a place where it was possible to wheel the machine up the steep embankment, and lost no time in reaching Promontory Point and breakfast.

Over the trestle bridge riding was splendid, either between the rails or at the side. By leaning the machine close to the side, there was just enough room for the trains to pass.

The weather did not recover from the wind storm of the previous afternoon; it was very cold and stormy. With favorable weather, one could easily make the run from Ogden to Lucin, the hundred and two miles that make up the great Lucin cut-off, in one long day. It took me nearly two days and a half, and the three nights I was out on the cut-off I had trouble in securing accommodations. The second night, at Midlake, a camp of Italian night watchmen, these good fellows generously gave me their best bunk, but the following night at Loy, with Italians again, I did not fare so well; it was another "cook house" revelry. Unfortunately the only furniture in the room was a three-legged chair, a shaky table and a bench. First I tried the table, but it was not long enough for a six-footer, and in any case it threatened to collapse. In despair I took to the bench and managed to get a few "forty winks" during that cold and miserable night.

If the nights were miserable, the days were doubly so. Every now and then, the cold, biting head-wind was accompanied by flurries of snow.

Somewhere in these notes I have stated that the next long motorcycle ride I make in desolate country, I will have batteries sent ahead. Yes, and oil. At Ogden I got some stuff they characterized as "good dope." Whatever it was in the "dope" line, it was worthless oil. Bumping the ties, as I did most of the 525 miles from Salt Lake to Reno, one has to do a good deal of walking, although the Southern Pacific line is better ballasted than the Union Pacific. In the cold wind the cylinder cooled quickly, and whenever I had to walk any distance the piston would stick. I remember that Mr. W. C. Chadeayne, of the Thomas Auto-Bi Co., who made a fast run from New York to San Francisco, warned me of the trouble I would experience in procuring good cylinder oil en route. And right here I must acknowledge my indebtedness to Mr. Chadeayne. On this last stage of my journey the information he gave me before I left Buffalo prepared me for what I had to encounter. I always drummed along at a busy hour, but whenever I called on him he would stop work, bring down press cutting books, private diaries, photos and everything else that he thought would help. The fact that I was riding an opposition machine made me appreciate his kindness all the more.

Between Lucin and Tacoma I crossed the boundary line between the Mormon's Promised Land and the barren Silver State, which is by no means a cyclist's paradise. From Montello to Wells the road is fair, preferably in most places to the ties, but there is a steady up-grade.

Tuesday, 23rd, was one of the most pleasant days I had had west of Ogden. Old Sol developed more power, and I managed to keep myself comfortably warm during the run to Elko. Leaving Elko behind the next afternoon, I had a picturesque road to follow to Carlin. Once I went to the railroad to avoid a steep hill and was within an ace of being run down by the Overland Limited. There was a pretty stiff head wind, and I was not thinking of the mile-a-minute Flyer. The first warning I had was the whistle, as the big engine swung around a turn. I jammed the coaster on tight, and was off in a second, but the wretched pedal caught on the rail. I tugged at it frantically, clearing the line not a second too soon. As the train rushed

past, the suction pulled my hat off, and for a day or two I felt nervous whenever I heard the whistle of an engine.

After this experience it was with some misgiving that I kept to the ties between Carlin and Beowawe. At the head of the canyon there is this notice: "Private way, exclusively for trains; Persons are forbidden to trespass hereon." Over the first of the thirteen bridges I crossed that afternoon; I walked with a good deal of trepidation. The turns and twists in the line are so abrupt that one cannot see a train for any distance either one way or the other.

Beowawe is quite an aristocratic desert "city." A hotel, store and saloon comprise all there is of it—all but the automobile; and it is the possession of this self-propelled vehicle that gives the place its superior tone. Mr. Jack Livingston, of Denver, is the expert who has charge of this lonely machine. He makes, or rather did when I passed, daily trips to the gold mines at Tnabo, a mining camp somewhere out in the wilds.

Between Carlin and Beowawe, through a combination of negligence on my part and bad oil, the motor "ran hot" and by the time I reached the last named place I was in trouble. With the pumping house for a work shop, and Mrs. Livingston for a candle bearer, Mr. Livingston and I worked on the engine until the small hours of the morning, and discovered that the compression cam had worn and one of the bushings in the make and break, cut. We succeeded in getting the motor to run all right in the stand, but had no facilities to make permanent repairs, and the next morning, before I had gone many miles, I was in trouble again, and spent the day experimenting, a young coyote and a couple of magpies looking on. The coyote became comparatively tame after a while, and had not my camera been stolen a few days before, I could have secured an interesting snapshot.

I decided that I could do nothing until I came up with a good machine shop. The cam was worn so badly that it worked erratically—sometimes it lifted the exhaust valve at the right time; more often it didn't.

Foot sore and weary with trundling through the deep sand, I made Blue House, one of the establishments connected with the T. S. Ranch, one of the largest cattle ranches in Nevada. There was only the Chinese cook at home. "Bossy not in. Him away ship cow," I was told. I explained that I would wait until "Bossy" returned—anything but walk twenty miles to Battle Mountain.

At dark eight cowboys came into camp, a fine, rought-looking lot, who, with their sombreros and goat-skin leggings, had a proper Wild West appearance. But they were the best of fellows. The hospitality of these wild riders is always genuine and

one who has trouble with them has only himself to thank.

A twenty mile trundle was on the program the following day. My hopes of getting a new cam made at Battle Mountain fell when I saw the town, every alternate business place of which is a saloon.

Plainly winter was not far away and I was determined to get over the Sierra Nevadas, hook or crook, before the snow. To trundle into Winnemucca, 53 miles, would mean too much delay. No passenger train passed through until ten the next morning, anyway I was out to have a good time vagabondising, which is not to be found riding in a Pullman, and to take to the cushions would make a break in the tour—and the fun. I decided to "bum it" on a freight to Winnemucca, if one came through before midnight, and in this way add another "roughing it" experience to my already pretty lengthy list.

This was about eight o'clock on a bleak, clear, moonlight night, and there was that sure sign of unsettled weather—light, shifting clouds. I wheeled the machine over to the railroad and left it in a shadow where it would not attract attention and went back to the hotel for supper.

A few minutes after eleven (I spent the evening watching some miners—plungers when it comes to gambling—playing cards for big money) a heavy laden freight came along. It may be easy enough to beat freights by oneself, but with a motorcycle the situation is somewhat aggravated. However, I sneaked around, heaved, with no little effort, the machine on a flat car, gave one of the train crew who caught me in the act enough to make him blind to my presence and vaulted up beside the motor just as the train pulled out.

What with sparks down my neck and a cold frosty wind against which an ordinary cycling outfit would be poor protection, that fifty miles was the most trying stretch between Buffalo and San Francisco. By the time I reached Winnemucca, three o'clock in the morning, I was pretty near congealed, and had fully made up my mind that the next time I "beat the freights" it would be in warm weather.

The desert was wondrously still in the early morning. At the little siding where we stopped, there was not a sound save the steady throb, throb of the engine. The moon shed its silver trail on the sand, and the clarity of the desert atmosphere made the silence almost awesome, yet there was a fascination about it all. We seemed to be out on a vast ocean of desolate land—an ocean without the ceaseless motion and murmur of the open sea.

Luck was in the next morning. Fixed up again, there was the last bad stretch of Nevada to cross. From Winnemucca to Lovelock, and from Lovelock to Reno were dreary stages. While the mountains are always comparatively close (there are sixty ranges in Nevada), the desert here

is more like what I expected all the deserts to be—flat sand beds.

A few miles past Brown, where I got a fine view of Humboldt Lake, I saw a huge eagle resting on a telegraph pole, and I itched to get my finger on the trigger of a gun. Several times before this I had cause to regret that I did not carry a weapon of some description.

As a rule the track was the better riding. On the wagon road, in some of the "draws" the sand was almost knee deep. Any one who has not had the unforgettable experience of crossing the desert cannot fully appreciate how glad I was to again strike country that was green, and where the birds sang.

From Reno I left the railroad and turned south to Carson City, 33 miles, where, as clouds hung over the Sierra Nevadas, I decided to stop that evening. Though sandy in places, it was a delightful ride along the foot hills, with the pine covered and cloud capped mountains immediately at the right and the Washoe Lake to the left.

Taking the Carson City route from Reno, you cross the mountains by way of the famous Kingsbury grade, a steep, killing climb of seven miles. When I started up the trail the following morning, the Carson City folk told me that it might snow, but I decided to risk it. I was now becoming anxious to sit down amongst the orange groves and in a kindly climate. Had it not been for the lateness of the season, I would have made a side trip from Carson City to the Walker reservation.

There is scarcely any of the Kingsbury grade that is rideable, and I soon realized that the Reno automobilist who told me that no engine would haul me up it, was no mere pessimist.

The view of the summit is ample compensation for a good deal of hard work. Through breaks in the clouds I could see the sun bursts down on the Carson Valley and on Lake Tahoe to the west.

It was rough going down the western side of the first summit. Buried in seven or eight inches of sand are rocks galore, not to mention hundreds of pine cones. Making the descent I had two punctures and a blow-out, and discovered that the pleasures of life are reduced to a minimum when you try to mend punctures in a snow storm.

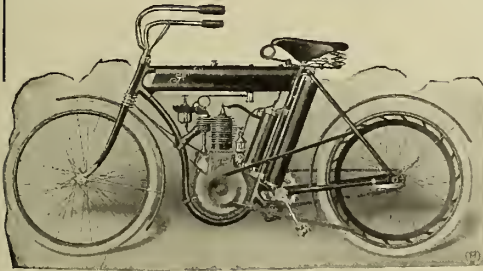
I stayed the night at Sierra House, right in the heart of the mountains, and by the shores of Lake Tahoe, 6,200 feet above sea level. The next morning the last summit had to be scaled. Once over this, I had a delightful spin of forty miles by the forest-clad banks of the American River to Riverton, a stopping place for tourists and teamsters.

I had some difficulty in passing a herd of cattle that were being taken down to their winter feeding ground. The road was wet, slippery and rough—ticklish riding at best—and the cattle took up every

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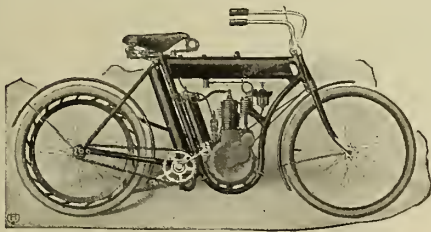
are made interchangeable on perfected jigs and tools in the hands of expert motor mechanics of years experience in this particular line and the

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inch of it for a mile or more. The cowboys warned me to look out or I would be "hooked down the grade" by one of the bulls. Not very encouraging! I got off to open the cut-out and started down after the wild mountain cattle. They didn't stop to "hook" me over the embankment, but jumped down it themselves or took to the forest. I heard a lot of shouting and cracking of whips, but did not wait to hear what the cowboys had to say about the matter.

I don't know how much shorter or better in other ways the Truckee route over the Sierra Nevada is, but I do know that for any one who is making the transcontinental tour merely for the pleasure to be got out of it (and it is limitless), the old emigrant road, via Carson City, has scenic attractions that are worth considering. When I left Riverton, fairly early in the morning, the forest scenery was exceedingly beautiful. Even though it soon began to drizzle, one could not help but enjoy the ride.

West of Riverton the road is covered with a fine red dust, which after less than an hour's rain, blocked the wheels and I had to take refuge in the forest, contenting myself with dodging along amongst the trees. Everything was so fresh—it was not a cold rain—and the little grey squirrels so interesting, that, though I was getting pretty wet, I thoroughly enjoyed the last few miles into Placerville, a small mining and lumber town in the foothills.

Here I was delayed four days, during which it rained almost without a break, and when I turned on the gasoline again, the roads were just as bad as they could possibly be, until I got down into the Sacramento Valley. Half a day's halt in Sacramento, the state capital, and then a pleasant evening's run of 30 miles to Madison, was followed by a fifty mile day to Benicia; and from Benicia the next morning, Nov. 10th, two hours brought me in sight of San Francisco, the Golden Gate, and the bright Pacific ocean.

STANLEY BOWMAR.

One Cause of Carburetter Trouble.

Not a little carburetter trouble may be caused by a sticking float which from the nature of its affection only goes wrong part of the time. In such a case, an over-rich mixture, a tendency to flooding, and difficulty in starting may result occasionally, while ordinarily no difficulty is experienced. There should be no doubt in the mind of the rider that the float is working smoothly in its chamber, or that its valve is seating properly. Otherwise, a deal of difficulty and a host of conflicting symptoms may serve to confuse him for a long time.

"The A B C of Electricity" will aid you in understanding many things about motors that may now seem hard of understanding. Price, 50 cents. The Bicycling World Co., 154 Nassau Street, New York City. †

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Tourist's Tribute to the Pig.

"Me for the pigs," exclaims the tourist-motorcyclist in a Western print. "If I were a writer I would indite a glorification of the pig. Dogs don't count. The pig is the one sensible animal from a man's point of view.

"If you're racing through the country at a forty-five rate don't stop if you see a pig. He'll wander away from your path with all the intelligence of a human being. He'll fall right into the gutter and stay there.

"The dog, however, will race straight at you. Doggie is a poor judge of distance. He thinks he knows it all. He sees you

coming and runs out to bite your tire just as he is used to bark at your horse's heels. Consequence: dead dog, busted machine, perhaps. Once a dog missed my front wheel, shot by the machine and was never touched. I saw him sitting down in the middle of the road wondering what had happened.

"Cows are eager to get out of the way, but don't know how to do it. If you see a cow, just slow up. Sheep are the same way. They are like fussy women; they don't know just what to do.

"The horse isn't so bad. If you meet a stray horse, slacken down a little if the

road is narrow. The horse always gets in front of the machine and starts to run. His hoofs will send a showed of mud in your face, but he's bound to keep ahead of you.

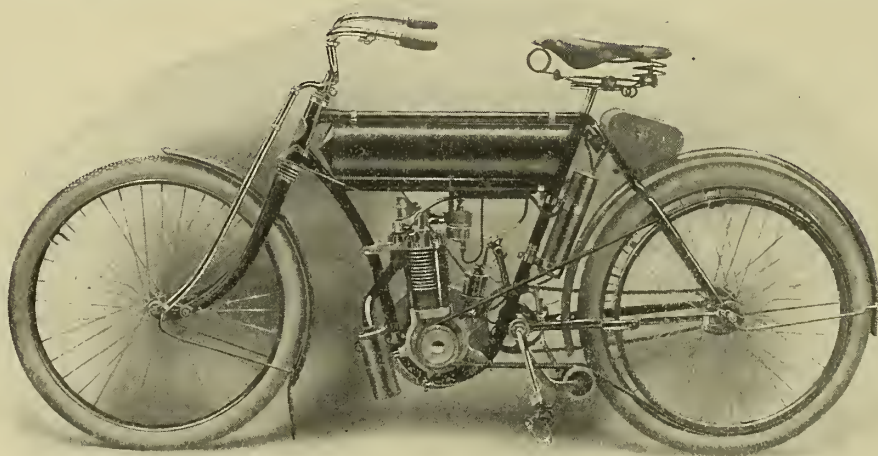
"But the pig's the thing. He's the only animal in existence who knows enough to get out of the way of trouble."

Good Book for Motorcyclists.

"The A B C of Electricity" will aid you in understanding many things about motors that may now seem hard of understanding. Price, 50 cents. The Bicycling World Co., 154 Nassau Street, New York City. ***

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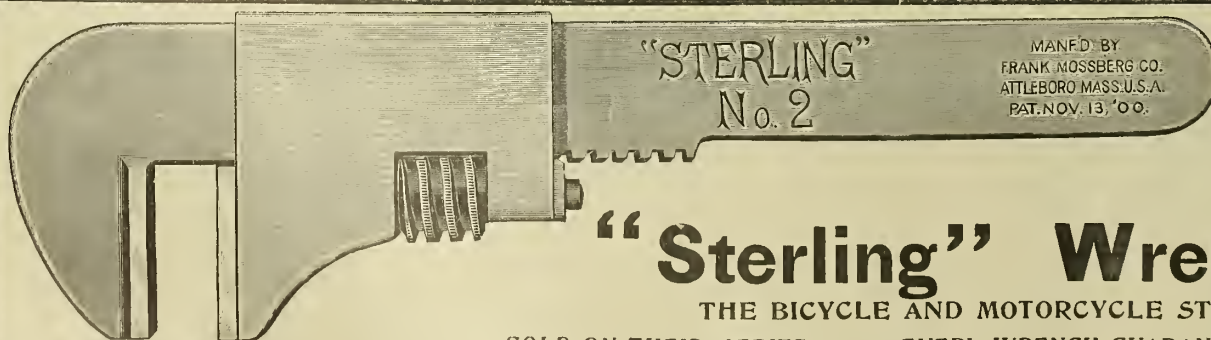
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THE BICYCLING WORLD and MOTORCYCLE REVIEW

FOUNDED 1877.

Volume LIV.

New York, U. S. A., Saturday, January 26, 1907.

No. 18

ENGLAND'S ENORMOUS EXPORTS

Including Motorcycles, They Almost Reach Six-Million Mark During 1906—Parts Form the Biggest Item.

While the monthly summaries have served to indicate the robust healthfulness of Great Britain's cycle export trade, it is the totals for the year, that just have been promulgated, that disclose or emphasize not only the immensity of the business but its great recovery.

During December the exports attained a value of £86,891, as against £81,677 in December of the previous year, which brought the total for the year 1906 to £1,140,595—in round figures \$5,700,000—as against £945,490 for the preceding year, an increase of \$975,000. In 1905, the total shipments aggregated £739,971, a falling off from the year previous when the record was £849,281.

While the total number of complete bicycles shipped from Great Britain increased some 31,000 or from 47,604 to 78,841, the bulk of the exports was again made up of cycle parts the value of which was £710,399 as against £638,301 in 1905, the record in detail being as follows:

	1905.	1906.
Number of machines...	47,604	78,841
Value comp. machines	£307,189	£430,196
Value cycle parts.....	£638,301	£710,399

Total..... £945,490 £1,140,595

In addition, Great Britain exported also 739 motorcycles and parts thereof of the total valuation of which was £51,270, which added to the cycle values, would bring the year's total to nearly \$6,000,000; in 1905 688 motorcycles and parts valued at £40,589 were exported.

The increases were made in the face of an enlarged import trade which attained a value of \$700,000, and though the increase, \$150,000, is not very heavy, is not the less notable. Most of the importations con-

sisted of parts, only 1091 complete bicycles worth \$35,000, having been brought into the country, a decrease of about 40 per cent. By virtue of this shrinkage, the increase is, of course, accounted for wholly by greater shipments of cycle parts. The detailed import record follows:

	1905.	1906.
Number of machines.	1,876	1,091
Value comp. machines	£ 10,951	£ 6,520
Value cycle parts.....	£108,102	£135,229

Total..... £119,053 £141,749

In addition, there was imported 1,747 motorcycles and parts, value £80,894, as against 1,700, worth £79,843, in 1905.

Changes in the G & J.

C. H. Semple, secretary of the G & J Tire Co., Indianapolis, Ind., has resigned that office, and his resignation has been reluctantly accepted. He has become president of a new automobile tire company which just has been organized in New Jersey. Semple's interest in the G & J tire dates back to its very earliest day in the '80's, when he was connected with the Gormully & Jeffery Mfg. Co. in Chicago. His successor has not yet been chosen. At the same meeting at which Semple's resignation was accepted, H. O. Smith also retired as a director of the G & J Tire Co., of which he once was president, and thereby severed all connection with the Rubber Goods Mfg. Co., of which the G & J is a unit.

Will Push Single Cylinder, Too.

Although the Ovington Motor Co., New York, American agents for the F. N. motorcycles, have hitherto devoted themselves almost wholly to the four-cylinder model, they have now taken up the two horsepower single cylinder F. N. also, and will aggressively push its sale in this country. The latter employs belt transmission but in connection therewith uses enclosed gears that permit of gear-reducing and likewise facilitate adjustment. Magneto ignition also is being featured.

NEW ENGLAND AWAKENING, TOO

Indications of Improvement in That Long Dormant Region—Baker Even Places an Agency in Boston.

Although New England—Massachusetts in particular—possesses some of the finest roads and most glorious scenery in the country, it is notoriously about the most barren section in a cycling sense. The bicycle salesman whose duty it is to cover the territory always is an object for commiseration and carries the sympathy of his fellows who scour the more favorable regions; he undeniably has a hard row to hoe. But signs accumulate that even New England is sharing the improvement that is being manifested in nearly all other directions. Of course, the improvement is not great but any improvement there merits remark.

F. A. Baker, of F. A. Baker & Co., who handle the Pierce bicycles in New England and New Jersey and a small part of New York, is one of those who report the encouraging state of affairs. Already his sample orders aggregate more than half of the total sales of Pierces in his territory during all of last year and he has achieved what was generally rated an impossibility: He has actually placed an agency in Boston itself. Joseph McDowell, who covers New England in the Yale interests, is another traveler who confirms the reports of strengthened trade and whose business is ahead of last season's.

Two Non-Skid Treads Now Available.

For the first time motorcyclists are to be afforded some choice in the matter of non-skidding treads. This is due to the fact that the G & J Tire Co., in addition to making their motorcycle tire with the familiar corrugated tread are also producing it with the so-called Bailey studded tread.

WHY MAGNETOS START SLOWLY

Ovington Goes Deeply Into Some of the Difficulties, and Explains How They May Be Overcome.

Editor of the *Bicycling World*:

Under the caption, "Difficulty in Starting With Magneto," H. E. D. asks, in the *Bicycling World* of Jan 18th, why it is that at times he has difficulty in starting in spite of the fact that he has a Simms-Bosch magneto, which is acknowledged by all to be one of the leaders of its class. I shall try and explain his trouble, although I am laboring under a great disadvantage in not being able to examine his magneto. A few minutes with his machine and I think I could diagnose the disease. If H. E. D. is a New Yorker, or ever comes to New York with his machine, I shall be glad to see him at my office, 2208 Broadway, and would be only too happy to elucidate the principles laid down in the following paragraphs.

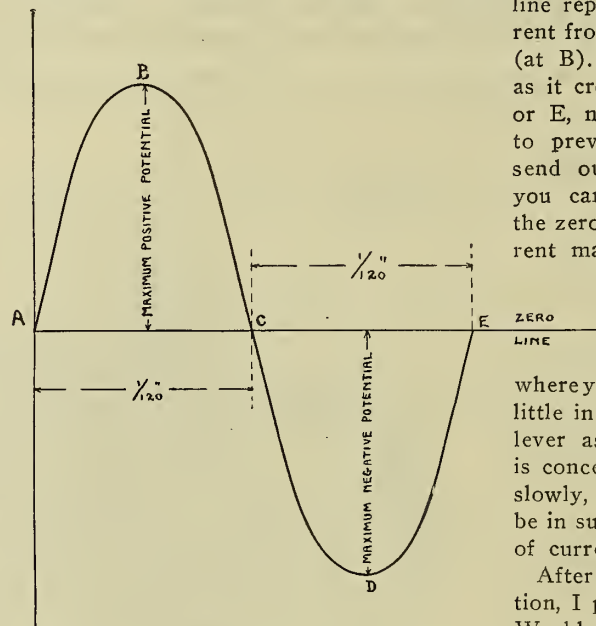
In order to start easily or run very slowly with magneto ignition, the motorcyclist must observe two conditions not so important when the battery system is employed. Firstly, he must have his spark plug contacts very near together. Secondly, his lever which advances and retards the spark must be in such a position that the break in the electrical circuit is made when the current reaches its maximum strength.

In the first place let it be understood that with magneto ignition it is always advisable to have the spark plug points, that is the points between which the spark passes, much nearer together than when the battery system is used. The principle reason why it is not advisable to have a short spark gap with battery ignition, is because this system does not give a hot enough spark to ignite the gas if too short a gap be employed. A magneto, on the contrary, gives such a very much hotter spark that an extremely short gap is allowable.

The advantages of a short spark gap at the plug are several. In the first place it takes less voltage or potential to jump a short gap, than it does a long one, and in consequence the machine starts more easily, and runs more slowly, with a short gap. In the second place a plug with a short gap will not short circuit with oil and soot as readily as one in which a long sparking distance is employed. This must be obvious if you stop to reason it out. For instance, as the deposit of soot on a plug increases the tendency for the electrical current to stop bridging the air gap and take an easier path through the soot (a good conductor of electricity) increases more and more. Finally the discharge meets less resistance in creeping from one point plug to the other by a path through the soot, than it does in jumping through

the air, and a short circuiting plug results. The plug must then be cleaned to be of service again.

Now the longer the spark gap the greater its electrical resistance, that is, the greater difficulty the spark meets in forcing a path through the air from one point to another. The result is that with a long gap the current goes across the soot, as soon as a continuous deposit is laid. Therefore, as far as the sooting and short-circuiting of plugs is concerned, a short gap is a great desideratum. With a magneto a short gap is possible. With the battery system, on the contrary, the



spark is not hot enough to permit a very short gap being used.

Therefore the first thing for H. E. D. to look out for is to see if his plug, or plugs if he has a twin, are so adjusted that only a very short distance separates their points.

With regard to the position of the spark timing lever at starting I shall try and make this matter clear.

A battery generates what is called a direct or continuous current. That is, the electricity flows always in one direction and remains at a practically constant strength over fairly long periods of time. It is evident, therefore, that the circuit is of a certain fixed strength whenever it is broken by the platinum timing contacts. In other words, the current strength is practically the same whether the platinum contacts break it when the timing lever is advanced or retarded.

A magneto does not generate a direct current like a battery, but produces what is called an alternating current of electricity. That is, the electricity flows first in one direction (positive) and then in the opposite direction (negative). Now, as the current passes through its various phases, or completes its "cycle" as it is called, its strength varies from zero to maximum to

zero in a positive direction, and again from zero to maximum back to zero in a negative direction. It is evident, therefore, that with a magneto it makes a great deal of difference at what point you break the current. In other words, the current strength depends upon the position of the timing lever.

In order that you may see the matter more clearly I have drawn one complete cycle of the alternating current generated by a magneto.

Referring to the cut you see a horizontal line marked "zero line." That is the line of no current or potential. The curved line represents the gradual rise of the current from zero (at A) to maximum strength (at B). Now if the current were broken as it crossed the zero line, that is at A, C or E, no spark would result, and in order to prevent this happening, manufacturers send out their motorcycles so fixed that you can't possibly break the current on the zero line, even if you wish to. The current may be broken, however, at a point below the maximum (B or D), and after you get going and the magneto runs at a fairly high speed it makes little difference where you break the current, that is, it matters little in what position you place the timing lever as far as the hotness of the spark is concerned. In starting or when running slowly, however, the timing lever should be in such a position as to get the full force of current at the plugs.

After reading the above lengthy description, I picture some reader of the *Bicycling World* saying, "Good Heavens, if I have to understand all that stuff in order to use magneto ignition, the battery and coil system for mine." No, gentle reader, you need to know no more about the magneto to use it successfully, than about the battery, but I always like to give the reason for any statement I may make, as there are certain individuals who always like the "whys and wherefores" of an argument. For them I have gone into this explanation. For those of the less investigating turn of mind, I'll now give simple and explicit directions in order to ascertain the position to place the timing lever in starting where the hottest spark will be given at the plugs.

Jack up the rear wheel so the machine may be pedalled on the stand, or the chances are if you have a machine the manufacturers of which are far enough advanced to employ the magneto, you have one upon which they had sense enough to put a combined stand and luggage carrier. If so, drop the stand so that the rear wheel is off the ground.

Now disconnect the magneto wire running to the spark plug and arrange a circuit so that there will be a spark gap between the high tension magneto terminal and the frame of the machine equal to about $\frac{1}{8}$ to $\frac{3}{16}$ of an inch. Get on the

HOW MIND AFFECTS MATTER

Faults of Motorcycles that Originate in the Imagination—The Process That Makes Them Realities.

Every rider of a motor bicycle, like every other individual in the world, is prone to the possession of certain hobbies on the basis of which he accounts for nearly all the woes with which he is plagued in life. Thus, while to one, the persistent missing of the motor means nothing more nor less than a weak battery, another is as certain as he that a drop or two of water in the gasoline, or maybe a little speck of dirt in the jet, is behind it all. The resulting process of investigation in every case, becomes a matter of habit, and every rider so afflicted soon comes to devote so much attention to this one particular point of attack that not simply is he apt to neglect other and no less vital spots in the machine, but the part which so overburdened with his attention is apt to suffer in consequence.

Thus in the case of the man who is perpetually discovering signs of a disordered carburetter, and usually interprets them as indications of a clogged spray, the constant jabbing at the tiny hole in the jet in which he is very likely to indulge, tends to wear the hole out of true, thus upsetting the natural adjustment of the mixture and perhaps destroying in time the correct working of the device. In addition to this, the frequent necessity of taking off the cover of the mixing chamber in order to get at the jet, tends to wear out the screws and in case he is not a very good mechanic, to cross the threads about once in so often. Or if the invariable "hunch" suggests that there is trouble with the seating of the needle valve under the float chamber, too frequent grinding will tend to wear it away, reduce its length, alter the shape of the delicate taper which is essential to its proper closure, and ultimately bring about a condition in which decent working is practically out of the question.

In the case of the man whose hobby is ignition, when he is certain that his batteries are weak (despite the indications of the voltmeter, as frequently happens), no evil results other than an undue increase in his expense account may be expected to result. If, on the other hand, he is prone to tinkering with the contact points of the contact breaker, or vibrator, as the case may be, the effect of constant filing on the precious metal of which they are composed will result ultimately in the necessity of a renewal which is untimely, all things considered. Spark plugs, it is true, are not materially injured by frequent cleaning. Yet the gaskets upon which they seat, although a small item of expense, wear out with the removal of the plug rather than

with service in the motor, and generally can be used only a couple of times unless treated with a degree of consideration which the amateur handler is not apt to accord them. And hence it may be considered more or less expensive events to look at a plug when it is not absolutely required.

It is the same way all through the motor and indeed, the entire machine from tire tread to saddle leather. It usually costs from two to four new piston rings to replace one that is thought to be faulty, and the result of careless or ignorant replacement usually introduces a long run of broken rings, and possibly a case of scored cylinder walls as well, before the difficulty is taken to a man who understands the art of fitting to a higher degree than is involved in the mere theory of the thing. Without too heavily attacking the clumsiness of the amateur repairman, it is safe to say that the first attempt at refitting a loose or worn bearing is almost certain to result in an expenditure of time which is absolutely beyond counting when compared to what the job really demands, while the natural and most invariable consequence of such effort is either an overheated bearing, or one which knocks from the time the motor is first turned over after the task has been completed until such time as it is again dismantled and set right.

If he does not get blown up in the attempt, the learner who attempts to solder a leaky tank, usually succeeds in unsoldering any portions of the faulty seam which may be in perfectly good condition, while the bad spot either comes off untouched, or gets a wad of metal sufficient to plaster over the whole surface and still leave enough to tin the much-abused iron afresh. If someone does not set him right before it is too late, the beginner who attempts to reset the timing of his ignition apparatus, is certain of having to begin at the beginning at least once before he can get the motor to turn over and do work.

In other words, the result of continuous hammering at what is judged to be a weak point in the machine, invariably tends to debilitate the organ most affected by an undue amount. And it is equally true that the most natural effect of ill-advised repairs, whether the inadvisability is due to a misunderstanding of symptoms or a lack of knowledge as to the proper methods of doing the work, is apt to result in an amount of expense, first of time and second of real money, which is absolutely needless. To certain riders, the chief joy of existence lies in altering the work of others, and to let the mechanism alone would be to lose half their joy of living. But to the more normal individual whose only desire is to go somewhere on the machine—not to improve it—discretion proves the better part of valor, and repairs which are left undone for a time frequently are of more use than those which are undertaken with a poor equipment.

machine and pedal it at a uniform rate of speed, shifting the time lever at the same time until the hottest spark is obtained at the gap. Note this position of the lever, for it is in this position the maximum current is obtained, and in starting the timing lever should always be placed here. In most machines the proper position for starting is when the lever is advanced about three quarters of the way toward highest speed.

After the machine is started the spark may be retarded if it is desired, but on the start always have the lever in the position described above.

To sum up then, if H. E. D. will see if his plugs have short spark gaps and his timing lever is in the proper position, I think his trouble in starting will entirely disappear. Incidentally, I presume he knows that if a small amount of kerosene be injected upon his inlet valves just before starting, this operation will be greatly facilitated.

I should be glad to learn with what success H. E. D. meets in applying the principles I have tried to set forth.

EARLE L. OVINGTON.

Editor of the Bicycling World:

In reference to the article that appeared on page 456 of the issue of Jan. 12, I may say that I also agree with the writer, H. E. D., that motorcycles which are equipped with magneto ignition of foreign manufacture, especially the single and twin cylinder types, are hard to start except by sharp pedalling, which is due to the incorrect method of timing the circuit breaker in the magneto; when the spark lever is in a retarded position when starting, the magneto gives a very feeble spark which is not of sufficient intensity to ignite the mixture which is usually too rich because of flooding the carburetter by depressing the needle valve of the same.

In a magneto where the armature and not the circuit breaker is advanced or retarded to time the ignition, the result is obvious: the break always occurs at the maximum point of the electric impulse or wave and thereby generates an intense hot, fat spark, which permits easy starting; a motorcycle equipped with such a magneto needs only to be pushed or pedalled a few feet at most. I have used a Splitdorf magneto of this description for about 1,000 miles with gratifying results. M. E. T.

Both bicycles and motorcycles will be admitted to the automobile show in Providence, R. I., March 18-23, and the enterprising B. A. Swenson has made the most of the opportunity by engaging two spaces; in one he will display Indian and Merkel motorcycles and in the other Pierce and Reading Standard bicycles. Corp Bros. also will display the motorcycles for which they are agents, while E. Pillsbury will exhibit one of his own design.

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NEW YORK, JANUARY 26, 1907.

"I certainly would feel lonesome without the Bicycling World. It is a valuable and most welcome weekly visitor."—C. C. Hopkins, San Francisco, Cal.

The Effect of the "Freaks."

The moral of the practical failure of the Florida speed carnival should not be lost to motorcyclists. That once world famous event, which just has been concluded, was but a sorry semblance of its former greatness and a fellow feeling cannot but inspire sympathy for the unfortunate promoters and managers.

There is no difference of opinion regarding the cause of its undoing: The blame is placed wholly at the door of the so-called "freak" machine—the abnormal monster that is built wholly for speed purposes and that is of no practical use. It creates a train of false premises on the part of the public that is far reaching in its results and that injuriously affects both the industry and the sport. It scarcely is necessary to point out what is perfectly obvious—that the maker or owner of a standard machine simply will not risk certain defeat or damage to reputation by pitting his normal possession against a

"freak" machine; this keeps down the entry list to slender proportions.

But this is but one way in which the sport is injuriously affected. It is the false standards that are set up that do the most damage, as the Florida carnival indicates. The "freaks" of previous years had created records which marked the limit of speed. As a result, no mile negotiated in more than 30 seconds was considered fast or aroused enthusiasm or provoked other than the comparison that is odious; and this damaging comparison is brought to bear whenever motor cars compete. It endangers the success of all meets that may be held and has been responsible for the decline of public interest in automobile racing. The public has been led to expect the impossible. If at a meet, a contest between "freaks" is programed, that contest becomes the "whole thing"; the other events are made to appear mere child's play. These "freaks" also return to vex their manufaceurers in that their performance induces purchasers to expect as much from the stock machines in which they invest their money; when they fail to do so, disappointment and criticism is the outcome.

Each of these situations is fairly clear to the thinking person. Their meaning is as plain. The "freak" has reared its head in motorcycle sport and danger threatens. If there is any way in which it may be averted, the steps in that direction should be taken before it is too late and before the damage is done.

"Sprucing Up" That is Necessary.

It is significant that not all of the automobile dealers and garagemen sniff at motorcycles as they used to do, but are now evincing an increasing disposition to accept them seriously. A few of the motorcycle makers, realizing this fact, are going after them, and not without success, and there can be no question that the situation is full of suggestion for the bicycle dealers who are disposed to be heedless and not over particular in the conduct of their business.

There is no other possible reason why the automobile dealer should capture the very lucrative business which is his rightful heritage than that the bicycle dealer is all too frequently prone to be lax in his methods of doing business, and especially in the matter of attending to the appearance of his salesroom and his attendants.

The advantage which the garagemen possess in this respect, is perhaps best developed in the words of a well-known dealer, himself a strong advocate of the most painstaking methods of obtaining business.

"When you go into a store," he said, "and find the presiding genius to be a dirty youth in overalls and undershirt with grimy hands and a suspicion of tobacco juice about the corners of his mouth, no matter how well posted he may be on mechanical matters, you feel an instinctive aversion to dealing with him. When you find the proprietor himself in a hardly more presentable condition, unkempt, unprosperous-looking, and rough, his chances of doing business are distinctly limited. If there happens to be in his neighborhood a well-kept garage where you are certain of courteous treatment at the hands of a well-kept man, who though he may know less about the machines, at least is clean, you are moved to go there instead."

Many of the dealers, and especially those in the vicinity of New York, have been duly influenced by the demands of the motorcycle business to spruce up their shops and make them more presentable, and that is a decided help to the trade and one which cannot be too much encouraged. But there are more instances in New York and elsewhere in which the sprucing up has been limited to the store, while the proprietor or his help still goes about in overalls, and seem utterly out of place in his neat surroundings. It is the appearance of prosperity which counts for a great deal, and the appearance of decency which counts for more.

On account of the shiftless tendencies of many bicycle dealers in this respect, the garagement are likely to steal away very much of their business in more respects than one, unless the use of the whisk broom and towel becomes more popular. There is no need for it to occur—this transfer of the motorcycle business, and no other excuse for it. Yet it is bound to come if the rightful handlers of the engine-driven machine do not make an earnest attempt to catch up with the procession. It is so much easier to do business with a well-dressed man in a parlor than with a workman in a shop, that it seems unquestionable that at least the half-way measure of spotlesstown decency must be of advantage so long as it is not permitted to become spectacular.

SUGGESTS SIGNALS TO BE GIVEN

Motorcyclists Point Out an Element of Danger and Ask Automobilists to Assist in Reducing It.

As the result of a communication addressed to W. E. Scarritt, chairman of the Committee of Public Safety of the Automobile Club of America by R. G. Betts, president of the Federation of American Motorcyclists, it is possible that another element of safety may be added to road travel. Generally speaking, the automobile driver considers that the motorcyclist is well able to take care of himself and usually this is the case, but despite the fact accidents have happened that might have been avoided—one of them resulted in a fractured skull—due chiefly to the automobilists' belief that his approach is always audible. In his letter to Mr. Scarritt, the head of the F. A. M. points out that this is not the case. He says:

"Your report to the A. C. A. dealing with evils that exist suggests one source of danger which has been called to my attention several times and of which I can testify from personal experience. This is the danger to motorcyclists which comes of their being passed without any warning by automobilists and also of their suddenly encountering cars when rounding bends on country roads. The cars are now so silent that motorcycles make just sufficient noise to prevent the approach of the cars being heard. Several accidents have occurred and very many more have been narrowly averted and I solicit your assistance in reducing their possibility. It may involve the use of horns or sirens, the unnecessary use of which you are trying to suppress, but I can assure you that from the motorcyclists' standpoint the need of some such warning is real and not fancied. It may surprise you to learn that a motorcyclist riding in the same direction as even the big barking cars used in the Vanderbilt cup races cannot hear them until they are practically upon them. This knowledge may assist you in arriving at an understanding of our position and I trust that if you can do anything to spread the word that will accomplish the end we seek, you will do so."

Chairman Scarritt has promised that he will "spread the word."

One of Powers's Promises Recalled.

"Any man who has to deal with a six-day race has my sincere sympathy," remarked a member of the New York Motorcycle Club the other day after reading the story of the Root-Fogler scandal, "which means that Pat Powers has a share of my sympathy. He may be right in shouting 'lie' and in indignantly denying that he ever agreed to pay them \$1,500 for remaining

in the last race, but I don't mind telling you that one of Powers's promises gave one of our members some pretty unpleasant moments.

"It was in 1903 and the member in question was actively interested in the formation of the F. A. M., and had to do with outlining the inaugural program. At that time Powers had control of the Manhattan Beach track and our man went to him and suggested that a few motorcycle events be added to the bicycle races would prove in the nature of a feature. Powers saw the light at once and readily agreed. Perhaps he is so used to dealing with men who do nothing for nothing that he could not imagine that other sort of chaps really exist. At any rate, he left his late partner, Kennedy, in his office with another visitor and escorted our representative to the elevator. He there suggested that he take entire charge of the motorcycle races and told him he would be glad to give him \$50 for the trouble. Our member replied that he was not looking for money, but suggested that he would take the "fifty" and turn it over to the club. Powers was very agreeable to the suggestion and in due course the member appeared at a club meeting and announced that he had 'found' \$50 for the treasury. He was figuratively patted on the back.

"Well, the races were held, the F. A. M. was organized and weeks ran into months but the 'fifty' was not forthcoming. The member reminded Powers of his promise several times and pointed out that he had placed him in an embarrassing situation in the eyes of his club; but it did no good. Powers never denied the agreement but he always had some excuse for putting off its fulfillment. At last the member, to clear himself of any suspicion that might exist, appeared before the club and explained the real beauty of Powers's promises. The six-day promoter never did 'make good,' so you may understand that while he is entitled to some sympathy in the Root-Fogler matter, there are some of us who are inclined to send a little of it in their direction, also."

Massachusetts's Motorcycling Population.

According to the annual report of the Massachusetts Highway Commission, the number of motorcyclists increased during 1906 by about 25 per cent. It gives the total number of registrations during the past year as 666, as against 533 in 1905. The income resulting from the registrations during the past twelve-month was \$1,332.

Dates Fixed for Championships.

The 1907 world's championship meet, which was awarded to France, will be held in Paris, under the auspices of the U. V. F. The Parc des Princes will be the venue, and the dates June 30th and July 4th and 7th.

OAKLAND TEAM WINS INDOORS

Takes the Measure of Two Teams From San Francisco—Even the "Champeen" Roller Rider Beaten.

In the first inter-club home trainer race of the year, and the second in San Francisco since the earthquake, held on the 16th inst., McTighe and Bassett, of the Oakland Wheelmen captured the Lisseur Trophy from a field of five teams, McTighe also winning the individual time prize in the shape of a gold medal. Daggett and Sullivan, of the Bay City, and Laye and McGrath, of the New Century clubs, tied for second place in the race which was run in two-mile heats.

The best time of the event was made in the first heat, when McTighe ran away from Nugent of the Golden City Wheelmen, and finished in 2:19½, beating his opponent by 15 second and more. At the start of the second heat the breaking of a chain disabled one of the rollers, and the remaining heats were run in sequence in competition with the clock. Goetzee, of the Central City team, and Laye, of the New Century team, were up at the time, and the former made the worst time of the race, finishing in 2:54½, while Laye finished in 2:34. McGrath, of the New Century, and the acknowledged roller champion of the coast, rode the fourth heat in 2:27, against the Bay City man, Sullivan, who used up 2¾ seconds more in completing the required number of revolutions. Bassett, of the Oakland team, made second best time in 2:22½. Summary:

First heat between Oakland Wheelmen and the Golden City Wheelmen—Won by McTighe, O. W., 2:19½; second, J. Nugent, G. C. W., 2:35.

Second heat between Central City Wheelmen and New Century Wheelmen—Won by Laye, N. C. W., 2:34; second, Goetzee, C. C. W., 2:54½.

Third heat—between Oakland Wheelmen and Bay City Wheelmen—Won by A. Bassett, O. W., 2:22½; second, A. Daggett, B. C. W., 2:31½.

Fourth heat between New Century Wheelmen and Bay City Wheelmen—Won by G. McGrath, N. C. C., 2:27; second, M. J. Sullivan, B. C. W., 2:29½.

Fifth heat between Golden City Wheelmen and Central City Wheelmen—Won by J. Coughlan, C. G. W., 2:30; second, E. Pogue, C. C. W., 2:47.

Total time—Oakland Wheelmen, 4:41½; Bay City Wheelmen, 5:01; New Century Wheelmen, 5:01; Golden City Wheelmen, 5:15; Central City Wheelmen, 5:41½.

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WERE "KINGS" OF THE CARNIVAL

But as They Rode Motorcycles, Neither
Curtiss nor Wray Received Full Credit
—Mile Record Now $44\frac{2}{3}$ s.

Although from the standpoint of real merit, the two motorcycles that participated in the Florida speed carnival on the Ormond-Daytona beach were really the "stars" of the affair, as always is the case

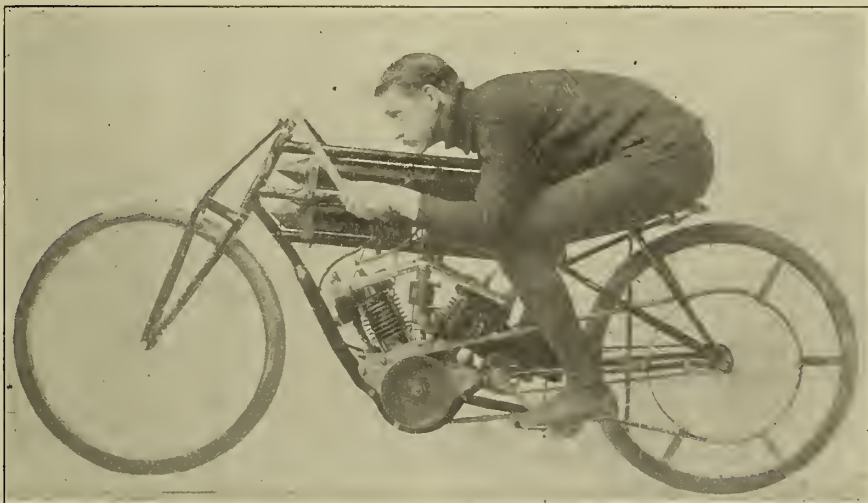
Curtiss rode the double cylinder motor bicycle of his own well known manufacture; it is nominally rated at five horsepower but with $3\frac{1}{4} \times 3\frac{1}{4}$ cylinders it develops more. Wray, who is interested in the manufacture of the Simplex motor bicycle, rode a double cylinder Peugeot racer which just had been brought over from France and which is rated at fourteen horsepower.

In addition to his two-cylinder model, Curtiss also took with him to Florida a

The carnival practically petered out yesterday. It was such a failure that it is doubtful if ever there will be another one. Only a pretense was made of following the program that had been laid out, so great was the scarcity of entries and so lukewarm the interest. It is generally agreed that the affair has been all but killed by the freak speed cars which in previous years had been permitted to monopolize attention and against which it was folly for any of the standard productions to contend. They had educated the public to a false idea of speed which made any performance by stock cars appear tame indeed. This year only two "freaks" appeared and as they were almost always in trouble they did nothing to rescue the carnival from mediocrity and failure.

Trying to "Smoke Out" the Manager.

Out in Salt Lake City, they are having quite a "time" over the management of the Salt Palace Track. H. W. Heagren, who managed the "bowl" in 1905 and who is the idol of the racing men, was replaced last year by John M. Chapman, himself one of the riders. But John got himself disliked and though he claims to have been re-appointed—and he certainly was present in New York during the six-day race, when he was negotiating with riders to go West—this is disputed.



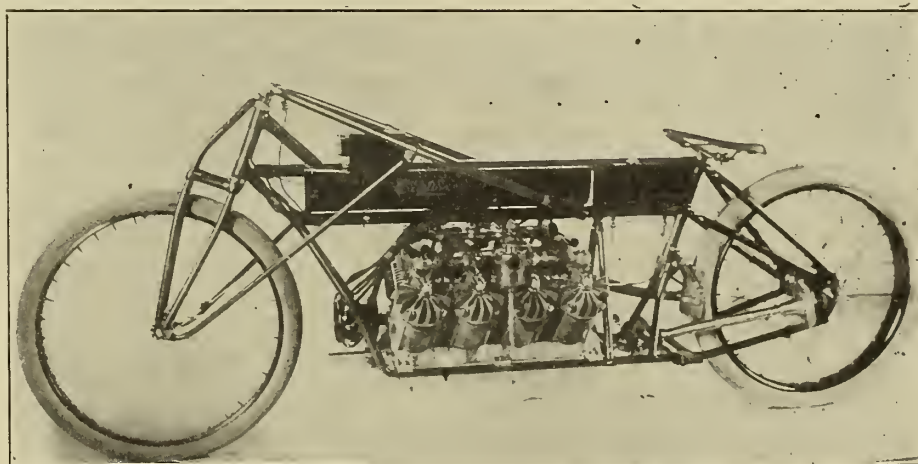
G. H. CURTISS ON HIS "DOUBLE"

when motorcycles and motor cars mix, the former received scant notice.

George H. Curtiss, of Hammondsport, N. Y., and William H. Wray, Jr., of Brooklyn, N. Y., the two motorcyclists who participated, covered themselves with glory and excepting only the times made by the Stanley beetle-shaped "freak" steamer, which went to smash yesterday, the fastest miles of the carnival and the only real race stand to their credit.

In a mile race on Wednesday, 23rd inst., in which they were the only competitors, Curtiss beat Wray by about three lengths in the record time of $46\frac{2}{3}$ seconds, which seemed likely to stand for a while. Yesterday, however, Wray made an official trial for the record and got it, doing the mile in $44\frac{2}{3}$ seconds—about $80\frac{1}{2}$ miles per hour—so that Curtiss must be content with the honor that comes of possession of the competitive record. The F. A. M. recognizes both classes—against time and in competition, standing and flying starts. Almost unnecessary to say, in each of these two performances a flying start was employed and that they were straightaway. Curtiss had made the first trial against the watch on Tuesday, 22nd, when he did $53\frac{1}{3}$.

The race on Wednesday was an exciting one. Wray drew the lead at the start and held it until within 100 yards of the finish when Curtiss, who had been slowly closing up, flew past and won in the fastest time ever made in a race on bicycles of any sort.



CURTISS'S 40 H. P. EIGHT-CYLINDER MACHINE

three horsepower single cylinder and his freak forty horsepower eight cylinder machine. The latter was put out of business by a break in the transmission before it had a chance to distinguish itself and so remains merely an interesting exhibit as being the most powerful motorcycle ever put together, although in a private trial it is said to have done a sensational mile in $26\frac{2}{3}$ seconds, but private trials "don't go" and the big machine is away over weight, anyway. With the little single cylinder, however, the Hammondsport man negotiated an official mile in $1:05\frac{2}{3}$ on the 21st.

Lawson, Redman and other of the Salt Lake residents have been "rooting" for Heagren and against Chapman and became so worked up over the matter that as the result of a meeting Redman was delegated to address John Halvorsen, lessee of the track, in an effort to discover "who's who." In his letter, Redman told Halvorsen that the riders did not assume to dictate to him but they were anxious to learn whether Chapman had been re-engaged in order that "we may know what to expect." Halvorsen's response was prompt. It stated that he himself intended to manage the track.

CONCERNING COMPANIONSHIP

Vagaries and Eccentricities of Companions
Reviewed By Cynical Cyclist—Making
the Other Fellow Useful.

Theoretically, a companion is an aid to cycling; the demonstration thereof lies in his regard for tire repairing. Sometimes he is a useful peg on which to hang complaints, but it is beyond arguing that he can be an unqualified nuisance. In my time I have met all sorts and conditions of companions; so I anticipate spending the rest of my life dodging them, says "The Owl" in Cycling. They have been blessed with every degree of knowledge, but the less they know about cycling the better. Nothing can be so annoying as the companionship of a man whose comprehension of cycling is greater than your own. He is less likely to be induced to stop a whole-souled gap in your back tire under your friendly direction, and in following him wherever he listeth you stand two chances to one of getting tired first. Companions, however, properly managed and restrained, can bring a great deal of humor into the dreariest ride, and so they are to be tolerated and even encouraged.

The first companion I met was, naturally, perhaps, on my first tour. On that auspicious occasion I was rather surprised to find that I had an unmistakable head wind of hurricane power, though by subsequent penances along the Bath Road I have grown to appreciate the fact that no other wind will be known to me so often as I choose this route to the West. My companion was a docile beast of more generous proportions than my own, and I learned the mysteries and delights of hanging on thus early in my cycling career. When on the second day of the tour we lost ourselves in the vicinity of the Mendip Hills, a second advantage of companionship was brought home to me; for to be lost in company is better than losing yourself, while to be lost by somebody else is better than either. Afterwards, when I grew less submissive to this sort of thing, relations would become strained; it is thus worth while carrying maps, knowing how to read them, and insisting upon following the route which your own superior knowledge dictates. As we could never decide who possessed the most superior knowledge, I developed the habit, bad as it is, of touring alone. The affliction was of quite a temporary character, for I joined a club. If there is anything in a club that you suffer from, it is scarcely lack of companionship—unless you join a speed club, make a mistake, think yourself a crack rider, find it out too late and get dropped, which you will. A club of a certain kind known as "Mixed," will provide you, I should say

saddle you, with a companion for life, or, at any rate, until the Divorce Court intervenes. In a club you will pick up all varieties of companionable men, but beware of cycle-photographers, unless you have got the same complaint very badly yourself. If you have it few degrees worse than your friend, it will not matter, but should he be severely smitten with the charms of photographing every animate and inanimate thing within range of his camera, and you are merely slightly inflicted—just got a snapshot camera, for instance—you are in for a bad time. You must be very severe with this sort of thing. I once went touring with another fellow, and we both carried cameras. We also strapped camera stands to our bicycles. Each of us took on board one gross of quarter-plates. In addition, sufficient change of raiment to provide for our desirable comfort on a fortnight's tour. Further than that, a few guide books, road books, maps, touring literature, and other impedimenta as ballast. We both survived, but on the next occasion I went on a cyclo-photographic tour I decided to change my plans.

Just at this time it happened that I was developing into a Richard Jefferies, with a slight touch of Wordsworth. Other people gave it another name, but, nevertheless, I was imbued with a strong desire to stop and pen odes, and eulogies in prose, to every landscape which took my fancy. My friend was a camera fiend of the worst type. I selected him because he was so whole-hearted and thorough about everything, that I knew I need never scamp my literary efforts, and dreams of returning and shining brightly amongst the other stars in the literary constellation filled my mind. Everything worked splendidly on the first few days, when my friend displayed a restraint upon photographic ambitions which was wholly admirable. But one day, alas! One day we took the best part of twelve hours covering twice as many miles, which included dispensing with proper meals. Not that we pedalled very slowly; quite the contrary. But my friend developed a mania for obtaining pictures with a "diffusion of focus." There was nearly a diffusion of everything else. This was how it was done. I would sit me down, in the full glare of a broiling sun, if need be, and allow my friend full leisure for accurately focussing some beauty spot which took his fancy. While his attentions were confined to distant views and a cool breeze fanned the brilliant aspirations which trickled off the end of my pencil, this was right enough. It descended to the practice of making artistic pictures from evil-smelling pig-styes, however, and I struck. Not being gifted with the perception of a Ruskin, I was unable to dwell with sufficient ardor upon the architectural beauties of the aforesaid pig-styes what time my friend focussed and unfocussed, focussed and unfocussed again; tried different lenses and started from the beginning; spoilt a plate and be-

gan once more; and finally waited for the wind upon which he relied for the diffusion of focus so necessary to artistic effect. The diffusion of focus was too much for me. Likewise, it got rather tiring writing odes to moonlight nights, with every scrap of even starlight carefully excluded from our apartment, what time (usually an hour and a half) he changed the plates in his dark slides and cussed about things generally. I can never write good verse—I should say poetry—when another man interrupts me with "Confound the thing; go in!"—smash! The idea was a failure, from my point of view, but as it is only in the spring that I get the same feeling now, I have not felt it necessary to arrange another tour on these lines.

It must not be thought, however, that I despise companionship altogether. When you run out of hard cash, the other fellow is often a convenient banker, for instance. So, also, two pairs of hands are better than one in unshipping a back wheel, preparatory to making the other fellow find the puncture. Companions of the obtrusive character are often to be met. If they appear agreeable, there is nothing to be afraid of, but I am always suspicious of the affable stranger who offers you a cigarette. It generally means he wants something, even if it is only the loan of a spanner and not your aid in locating a squeak, though if it gets as far as the one, it is just as likely to conclude with the other. I have an infallible remedy, however, invariably declining the proffered fag on the grounds that I do not smoke, have not any friends who do, detest smoking and hate people who smoke. The underfed youth who assails you for information and subsequently seeks your society is even more to be dreaded. There is generally no getting rid of him, and excellent as companionship may be, you realize there come times when you would cheerfully give anything to be alone.

One Delight of Motorcycling.

While it is a comparatively simple matter to learn to ride and manage a motor bicycle, the rider should not content himself simply with acquiring the rudiments of the pastime. Considerable experience, and not a little patience and tact are required for the complete mastery of all the foibles of the little machine, and their conquest is a source of endless delight to the inquisitive and persistent nature. While plenty of diversion and amply good results may be developed with an ordinary understanding of the motor and its appurtenances, the acme of delight comes only when it is an open book, and its management has become a sort of pleasure and worry-less second nature.

Prosperity, according to an alliterative pencil pusher, is produced by six P's—push, pluck, principle, patience, prudence, and perseverance.

TWO MEN FROM FLORIDA ON A MOTOR TANDEM

Although the roads of the Southern States are not of the sort that encourage touring, like most of the average possessors of a motorcycle, I had long been fired with a desire to take at least one long journey. At the time I was residing in Florida and although the roads promised some strenuous travel, I set about effecting arrangements to ride to my home in Pennsylvania. The arrangements mixed business—the demonstration of Goodrich tires en route—with pleasure. I started from Jacksonville at 7 a. m., July 25th, on my Orient motor bicycle with my brother occupying the tandem attachment with which it had been fitted.

It was a glorious morning, such as one sees only in the "sunny South," and for the first fifteen miles we thought that both weather and roads were made expressly for cycling. A puncture and bumping rim marked our first mishap, but we were soon going again, headed for the unknown (to us). We came to the swamps and sandy roads all too soon. Every low place was full of water which we had to wade through. To do this and push a machine weighing 265 pounds, and also carry a 35 pound grip, a kodak and an extra tire meant enough perspiration to wet one's clothes if the water in the creeks and roads did not do it. A heavy rain came up in the afternoon, so we stopped in an old house, where I improved the opportunity to take a shave.

The creeks and water holes were deep and frequent when we resumed our travel. We had to stop and get off for the dump carts and mule teams of the native "crackers" as their outfits occupied the whole of the narrow roads. When we were going through one of the "branches" or creeks that submerged the road in places, we heard one of these "crackers" yelling at us like a Comanche Indian. We supposed that he was making fun of us and so we paid no attention to him. But he kept on yelling until I got mad. We waited for the "cracker" to come up, ready for trouble if he wanted it. When he came near we found that he was loaded with good corn whiskey and wanted us to have some, too. We thought a little inside lubrication would do us good.

Further along we came in sight of a house with a porch full of boys and girls, but our machine, which came tearing along with muffler wide open, scared them to a rapid disappearance, although we were able to detain one frightened youngster long enough to have him give us some directions as to the road. After quenching our thirst with rain water we started on and got as far as Dyal, Fla., where we could

get no accommodations for the night. We pushed on along the line of the railroad in a hard storm until we came to a burning slab pile, where we dried ourselves out after the storm. We got lodging with one of the mill hands.

We left the next morning very early and rode the railroad ballast, as the roads were so full of water as to be impassable. As the day lengthened and the sun put in its good work, we took to the roads again. We got lost, there being roads going every way through the woods. I took the sun as a guide and we kept on, until we rounded up at a negro's cabin, "Uncle Tom's," for all I know. We found a negro woman and a friendly dog (nit!). All the information we could get from the woman was that the railroad was off there to the right, and she did not know where it went to. We struck out for the railroad which we finally reached after contending with a lot of hard going and two barb wire fences. From this point on, we kept to the railroad, to Folkston, Ga., as the roads, though numerous, were so bad it was utterly impossible to make any headway on them. At St. Mary's river we had to cross a railroad trestle a half-mile long. A heavy rain accompanied us into Folkston. Here we met two of our Jacksonville, Fla., friends, surveyors on the Coast Line railroad, and they were the last of the Florida friends we saw.

From Folkston to Jessup, Ga., we rode on the railroad ballast and where there was no ballast we counted the ties. The country from Jacksonville to Jessup is one level stretch, all very much the same—in dry weather, shifting sand, and in wet weather full of water and almost impassable. It took us four days to go 112 miles, and good, long days at that. When we arrived at Jessup at 11:30 at night, we had been going since 6:30 that morning. Traveling in the dark, the only way we could get a drink of water was to listen for some spot where it ran beside the railroad and get down in the ditch and drink the stuff; though I can say that I never drank water that tasted better to me at the time.

We had lots of fun on the way chasing razorback hogs helter-skelter off the road. At one railroad bridge we decided to wash our clothes, which we did, drying them on a fence. Later in the day we came to a bunch of nigger girls who mistook our Bailey tread tire for a snake and ran yelling down the track. We were quite a while trying to persuade them that it was not a snake but a tire, and when they walked by us they kept their eyes fastened on the "snake." I guess they thought we were snake charmers traveling. It would fill a book to record all the queer questions I

had to answer, as our machine was the first motorcycle that had even gone through these parts.

As far as Eastman, Ga., 207 miles from Jacksonville, the country is all very much the same, with poor roads, no bridges and low, level landscape. Outside the few small towns there is not much industry, only here and there a saw mill or turpentine camp, and everybody taking life easy. From Eastman on toward Chattanooga, Tenn., the country becomes very rolling, with some big hills and mountains to go up. The soil is red clay, and when one gets into it he is like a fly in a glue pot. It is very slippery, too, and one can change ends in a fraction of a second, as I found out to my sorrow. We were riding along at about 20 miles an hour when we had our first experience in this treacherous stuff. We began to slip from one side of the road to the other, and then the whole outfit went end over end into the ditch. Such a sight you never saw when we tried to get straightened out again. We were an hour and thirty-five minutes getting over the mile and a half stretch into Jonesboro, Ga. But in the dry season these roads are very good.

In and around Chattanooga and through parts of the old battle fields of Missionary Ridge, Chickamauga and Lookout Mountain there are some very fine roads and drives, and the scenery is something grand. From the top of Lookout Mountain you can see for miles around, and the view is magnificent. It amply repaid us for our hard and weary journey to this point.

All but fifteen or twenty miles of the roads between Chattanooga and Hillsboro, Tenn., a distance of about a hundred miles, are nothing less than awful. After you cross the Tennessee River at Kelley's Ferry you follow the base of the mountain for miles, and the road is nothing but cobble stones and boulders. At Mt. Eagle you cross the Cumberland mountains. It took us two hours and a half to go up a mile and a half. It was like the roof of a house, it was so steep, and it was all the two of us could do to push our machine up. When we did get up we were too tired to look for any house, so we made our bed on leaves and branches in a small cave at the side of the road. And we did not need any rocking chairs to get sleepy in, either. The sun was high and fine the next morning before we again knew that we were living. The day had been the hardest travel in our whole journey, with perhaps one exception, when we were lost and stuck in a swamp 25 miles southeast of Macon, Ga.

From Hillsboro to Glasgow Junction,

Ky., the country is fine and the roads good with few exceptions. We rode over the old government turnpike from the Junction to Buffalo, Ky. It is made of cobbles which are entirely bare. It is here that you need rubber washers between your vertebrae, but as we did not have this equipment we had to take the bumps as they came. Five miles of this turnpike goes through Sand Hollow, where the sand is knee deep and a wheel almost buries itself. For us it was a case of push and push hard. From Buffalo, Ky., to Louisville and Cincinnati the roads are fair to fine, and the scenery is beautiful.

From Louisville we took the river road, routed in the L. A. W. road book of 1896, and found it just as stated there. We never enjoyed any ride more than we did that one along the river for fifty or sixty miles.

The rest of our route to Columbus, O., was over fairly good roads, but the roads were so dusty that we looked like millers every day, and our eyes suffered considerably. As this part of the country has been toured a great deal, there is no occasion for me to try and give any account of it. It contains some of the finest farming land to be seen, and is inclined to be rolling all the way. At Columbus my brother left me, and came on by rail, as important business called him, so that from that point I made the trip alone.

I stopped at Akron and went through the plant of the B. F. Goodrich Co., whose

tires I rode. At Cleveland I was entertained by L. J. Mueller, of trans-continental fame. We swapped stories of our experiences, and he later escorted me out of Cleveland on my way to Buffalo. It certainly seemed good to get up in these parts where the motorcycle is known and appreciated as it should be. My one big hope is that I shall never get too old to ride one, if I live to be two hundred.

At Buffalo I met another trans-continental rider, W. C. Chadeayne, and Mr. Becker, of the Auto-Bi Co., the pioneer motor bicycle makers of this country. With these gentlemen, nothing was too good for me. I seemed like a wanderer come home from a long absence and being received with open arms by his friends and getting the best to be had.

From Buffalo, Mr. Becker rode out with me for twenty-five miles over a fine macadam road, which made fine sailing. But from there on I had nothing but mud and rain, and rain and mud all the way to Scranton, the end of my trip. It was only in coming to and leaving the larger towns that the roads were at all good. I looked like a street sweeper, being covered with mud and my leggins and shoes soaking wet.

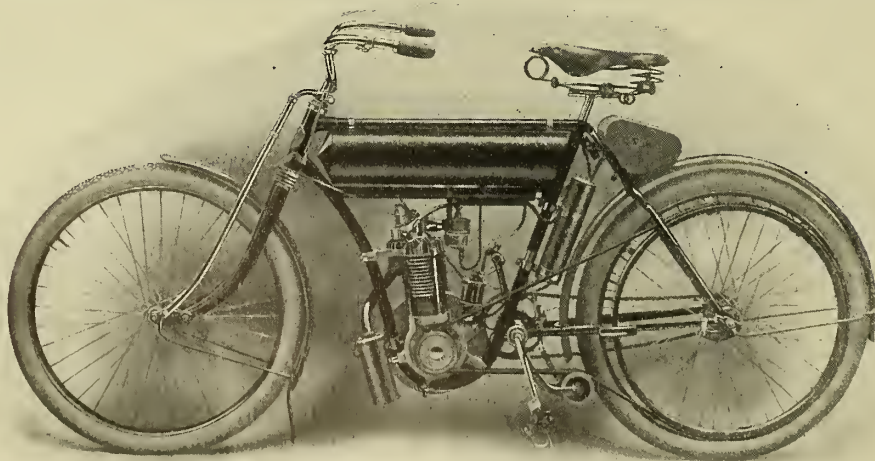
As long as I live, I shall never forget the night of October 23, 1906, when I almost froze to death. I had reached Dryden, N. Y., and had started about dark for Harford, six miles further on. I got

into mud so deep that I could not ride, and had to walk and push my machine, until I was completely exhausted and could go no further. So I made for a lumber pile where I spent the night. I was wet through by a freezing rain, which with my physical exhaustion found me almost dead in the morning. No one can know how glad I was when morning came and I was able to go on and find something warm to eat and drink. But I got started on the road again at once. I had Scranton, Pa., on my brain and did not stop for rain, mud or tumbles, longer than to pick myself up and mount again. Between Buffalo and Scranton I must have had a hundred falls or more, but I always came out whole and with no serious accident to my machine.

All along our journey we were entertained and accommodated at every place where we applied, with possibly one or two exceptions. Considering our mode of travel and our looks sometimes after a hard day's journey, this was rather surprising, and some of the farmers along the road will always remain bright in my memory for their hospitality. Only some one who has traveled as we did can appreciate their kindness.

Through my whole trip my old Orient never failed to bark when I turned on the spark, and for the whole 1,350 miles it pulled more per horsepower than any automobile made to-day. C. T. ANDERSON.

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OILED ROADS AND THEIR MAKING

Comprehensive Description of the Right Oils and the Right Processes—Some Causes of Failure.

During the last two or three years, the large black letters in which the benefits of surface applications of oil to the highway used to be discussed have gradually been reduced in size until at the present time the impression is current that for perfectly general use such treatment is of but little value to the ordinary road. The state of California, as having more oiled roads than any other State in the Union, furnishes the most complete, and from the nature of her departmental organization, probably the most authentic data on the subject. It is therefore interesting to note the remarks of N. Ellery, State Highway Commissioner, upon this subject in his Biennial Report, issued in December last, and just made public.

"No material is quite so important to our road improvement as crude asphaltic oil," he says. "It may be used as a dust preventative, a roof to shed the rain water from the foundation, and as a lubricant to reduce the rate of wear to the road surface.

"Upon inspection of oiled roads of this State it was found that no general system prevailed. In many cases, oil was applied to a rutty road, uneven and worn out, and then allowed to collect in puddles. This was labeled an oiled road. It takes but a short time to lose faith in work under such methods and it has been due to this lack of preparation and care that so many counties have discontinued the use of oil. However, such work was not found on all roads visited, as several counties of California have excellent oiled roadways. A good oiled earth highway was particularly noticed in Supervisorial District No. 2, Yolo County, where a highly intelligent use of oil may be seen on the Winters-Davisville road. Here is an earth road of splendid cross-section, prepared and oiled at a cost not exceeding \$150 per mile, and creating a road at this figure fit for heavy travel as well as light vehicles.

"The roadway is first cut out to the cross-section desired, with the crown easily decreasing in elevation to a slight gutter about seven feet from the property line, and from this point there is a rise to the edge of the right of way. The crown is not excessive, perhaps eight inches, thus giving ample opportunity for a lateral spreading of the travel. After the road is cut to a hard, even base and all weak spots remedied, oil is applied at the rate of one

gallon to the square yard of surface; then the grader returns the earth, which was piled at either side of the road to be treated, immediately over the oiled portion. While this is being done, a drag attached to the rear of the grader, smooths the earth over the oil to a depth of four or five inches. After thorough rolling and compacting of the earth on the oil, travel is permitted on the roadway. At this point an excellent plan is used: The travel necessarily creates a rough surface, and if allowed to continue without any further work a very inferior road would result. But the grader and attached drag go over and smooth the surface as necessity requires, keeping the work in almost perfect shape. By simply repeating this process, with grader and drag, to keep the road smooth until the oil eventually comes to the surface, an extremely hard, oiled road of earth is given. At any point, where there appears on the surface too much oil for the material, a local application of sand or earth is made. This process makes an oiled road by fully saturating with oil, giving it a body hard enough to withstand heavy travel with scarcely any indentation or drag to the tractive power."

As a result of his experiences, Commissioner Ellery formulates certain principles which should be applied in the construction of the successful oiled highway. Briefly, the conclusions are that: The selection of a proper oil is very essential, affecting as it does, the whole work. Good road oil should contain forty per cent. of asphaltum and have no more than three per cent. of foreign matter and water.

"Another item of interest and discussion in connection with oil for road building is whether it should be applied hot or cold," he continues. "Good roads have been obtained by either process, but, as cold oil is considerably cheaper, my preference is for cold oil, allowing, however, that where oil is very heavily asphaltic, heating may be required to give fluidity enough to apply the oil.

"Roads made of earth present the easiest mode of construction and the least expensive, when first cost only is considered, but as such to have good roads requires constant attention. They should be properly drained to meet all conditions of rainfall and crowned sufficiently to create a roof for the water to run off. Where oil is to be applied, the roadbed should be cut out evenly and compactly and solidly, in no case, however, leaving weak or wornout spots. Upon this should be applied from three-fourths to one gallon of good asphaltic oil, the amount varying to meet special conditions, and then immediately cover it with about four inches of earth. If sand or fine gravel is readily available, employ this material, as it gives a better body to the artificial bitumen. Then compact by rolling the earth upon the oil, and care for your roadway with a drag and grader as previously outlined.

"Where the roadway is composed of earth containing alkali or lime a different plan must be followed. It is now known that the asphalt of the oil is disintegrated by either material into two substances, petroleum and asphaltine, neither of which taken separately has any road value. Therefore, to obtain an oiled road of any reasonable life we must cover the alkali soil with some material with which they must be incorporated."

For gravel roads, his recommendation is: "First make a sub-grade of the given cross-section evenly compacted by wetting and rolling, and then apply four or five inches of the larger and heavier part of a screened gravel. Roll this well with about a ten-ton roller, and then apply about a gallon of oil to the square yard of surface. Upon this apply about three inches of fine gravel and sand, and then thoroughly roll again.

"What applies to the sub-grade for gravel roads is also applicable to macadam construction. On the sub-grade from four to six inches, according to foundation, of crushed rock should be applied and thoroughly wet and rolled. On this apply one gallon of heavy asphaltic oil per square yard of surface, and then cover with two inches of finely crushed rock. Upon this should be placed about one inch of screenings. This material must then be thoroughly rolled and cared for until the oil has reached or nearly reached the surface of the screenings. Whenever there is a tendency for oil to collect on the surface cover it with more screenings.

"In all instances where oil is applied beneath the real surface of the roadway, there is a tendency for it to rise and not to penetrate downward in direction to any great extent. This is due to the weight above forcing the material down, and the oil ascends, filling the interstices. It is my firm belief that this plan, if properly followed out, will give exceedingly gratifying results. If the top rock is hard the oil will extend its wearing life very materially by acting as a lubricant in prevention of the grinding process, and by having a depth of oil, say four inches, in the road gives an elastic binding which takes up the weight and shocks of travel, reducing the wear and the raveling of the ordinary macadam road.

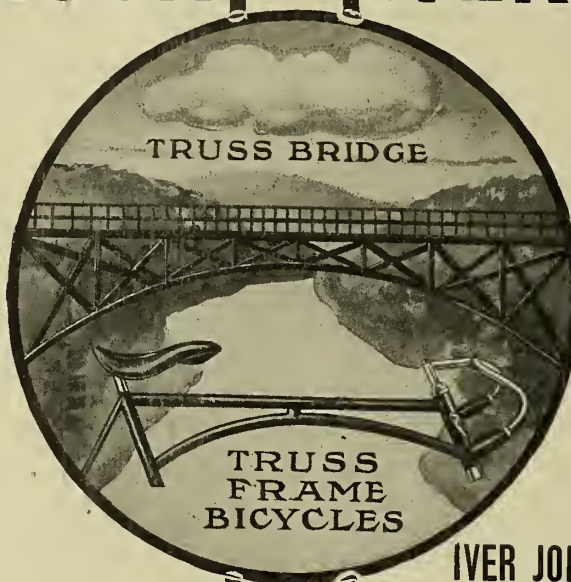
"Whenever a weak spot or rut shows in an oiled road it should immediately be repaired by cutting out a section with vertical sides, which shall be filled, in the case of gravel or macadam, with mixed oil and fine gravel, or fine crushed rock. On oiled roads the rut should be cut out, oil poured in, and then the excavation filled with about three inches of soil or preferably sand. Thoroughly tamp all material placed for repairs and in all cases make the fill slightly above the road surface to allow for settlement. The vertical sides to the excavation give shoulders beyond which the traffic can not shove the new material along or scatter it from its position."

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Elaborate Plans Were Necessary to Take Down His Pride in His Knowledge of Motor Bicycles.

"Confound it! Have you put the machine out of business altogether? I didn't bargain for that. What are you snickering at, Shorty, anyway. I'll bet you couldn't start her up yourself in a week of Sundays."

A string of remarks delivered with more force than elegance that culminated by precipitating a roar of laughter from the entire assemblage. There were twenty-five of them, more or less—all motorcyclists of some experience, and they surrounded a worried-looking, perspiring individual who was seated on a machine that he was vainly trying to get under way by furious pedaling interspersed with an aimless search for the cause in fits and starts that led to much profanity.

It was Sam Hyland and Sam was a "know-it-all." Unfortunately for him he had never had anything but minor troubles in his experience as a motorcyclist and the readiness with which he had been able to correct them on almost every occasion had not been good for him. In the vernacular he had developed a very bad case of "swelled head."

Several of his companions constituted themselves a committee and went into a continuous executive session to devise a plan whereby the mighty Sam might be humbled. If the intended victim had been a braggart and nothing more the task might have been easy, but Sam did know a motorcycle from the ground up and he knew its list of ailments backward, forward and from the middle in either direction. Consequently it was not easy to devise a plan that would serve the purpose of bringing him low. A dozen schemes were suggested and as quickly rejected and numerous others were outlined, some of which seemed to offer considerable promise at first sight, but which upon investigation proved to have some fatal drawback.

Getting Sam to incriminate himself was by far the easiest part of the task. When it came to the matter of rigging the "plant" it was found that its successful accomplishment presented difficulties not originally taken into consideration. But the committee was enlarged by the addition of several new members, all of whom were sworn to secrecy and with the aid of the new talent the plan as well as its execution were perfected. Jack Warren, whose supply store and repair shop constituted the headquarters of this informal clan of motorcyclists, placed his establishment at their disposal and rubbed his hands gleefully in anticipation of the fun for he, too, had a score to settle with Sam. With his assistance the

details of the plan were perfected and put into execution. The idea was to connect the battery circuit of a machine so that it could be controlled at will by someone in the audience. Thus, whoever was delegated as baiter in chief to the victim would be able to let the machine run or not, as he listed, and he could prevent it from running at all as long and as often as he wished to, provided the combination were not discovered. The greatest difficulty lay in arranging the properties so as not to excite suspicion and here Jack's aid was invaluable.

After much deliberation Jack settled the final plan of action. A cycle repairer's stand was to be the chief piece of property. Jack had one that he had made of old bicycle tubing in his earlier days and it could not have served the purpose better if it had



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been made to order. One of the clamps of the stand was carefully lined with fiber, in the other, which may be designated as the left-hand clamp, as it was intended to hold the frame of the machine close to the bracket, was lined with brass. Two wires were then inserted through the tubing and one of them soldered to the brass lining and the other one soldered to a small piece of brass designed to make connection at a point where the fibre lining did not come together. The battery ground connection of a machine was then loosened and a piece of wire just long enough to reach to the position at which the right hand clamp of the stand would grasp the lower tube was added to it. A small piece of bright brass was then soldered to the end of this wire and the wire itself carefully tucked between the tube and the battery case so as not to be visible. A hole was bored in the floor of the shop, the two wires leading from the stand were passed through it and the latter was then screwed fast to the floor over the hole, this having been se-

lected with a view to all the circumstances under which the game was to be worked. The two wires were finally connected to a push button sunk flush with the floor several feet distant from the stand and all was in readiness.

If this procedure has been followed closely it will be realized that the result of all this preparation was simply to open the battery circuit through the ground connection exactly as is done when a switch is left open or the plug not inserted, except that in place of either of the latter a floor push was substituted so that one of the seeming spectators could control the current with his foot and no one be the wiser. The machine would thus display as decided a reluctance to getting under way unless this button were pushed and kept in contact as it would with the open switch. The "plant" as finally set up was tested out thoroughly on the evening of its completion as the following day was a holiday and seemed to offer an auspicious occasion for the final trial in public.

There was a 100-mile run on that day and Jack Warren's place was the rendezvous, so that an hour before the appointed starting time a score or more of riders had gathered and prominent among them the doughty Sam. He was everywhere, advising the newer followers of the sport, talking technics to the more experienced ones and displaying his vast knowledge generally. One of the conspirators having artlessly disconnected the contact breaker of his machine so that it would not work properly, called on Sam for assistance and told him with an air of wearied despair that he had tinkered with the machine for the past hour without success. The walking fund of knowledge and general expert took the matter in hand with a professional air and after looking things over discovered the faulty connection, righted it and got the machine going in good shape. Then he looked around with an air of "any one else in trouble? Speak up now for the run starts in half an hour."

To old Jack this seemed just exactly the opportune moment. "Here's a machine that's got me stumped and everyone else, too. Had her to pieces a dozen times, cleaned her all over inside and out and put new batteries in her, but she won't run regular somehow. What do you figure's the matter," he said, leading the self-appointed expert over to the "plant." "I got so tired fussin' with her," he went on, "that I just rigged her up on that old bicycle repairin' stand you see there so's I could get at her convenient like."

Sam strolled over toward the cripple with a "watch me do it" expression that brought joy to the hearts of the schemers. He took the chair placed in front of it and with what was intended to impress the audience that had gathered as a mere casual glance he tried to take in all the details of the machine. But his practised eye saw nothing amiss. In fact there was nothing

to see; the machine was bright and clean and in as good condition as it possibly could be.

"Wait a minute," spoke up the old repair man, "and I'll put a stand under the rear wheel so's you can try her out. See if you can find out what's the matter."

Sam climbed into the saddle with great deliberation, tickled the carburettor, punched the inlet valve stem once or twice with his thumb and lifted the exhaust. He then pedalled hard for two or three turns and suddenly released the exhaust valve lifter with a look of expectancy. But there was no result and the audience looked more interested. He repeated the performance pedalling harder this time than before but with no better success.

"Well, I'll give her one more chance before takin' things down," announced the would-be expert, a statement that caused one of the conspirators to kick his fellow on the shin.

Sam pushed the pedals as if he were finishing a hard fought sprint in a bicycle race and when he finally dropped the exhaust valve his efforts were rewarded with a pop, pop, pop, and he was ready to declare the victory won when the machine decided to quit.

"Well, three explosions are a whole lot better than none. It shows that there's nothing very much the matter with the machine if she'll do that. I'll give her another try."

This time he left the exhaust valve down and laboriously pedalled against the compression. The second turn over she started, gave a single puff and quit. He took up the task again and was rewarded with two explosions; this time the conspirators could hardly contain their glee.

"That's getting encouraging," he remarked and tackled the pedals again. The man with his foot over the push button let him work until he was almost ready to give up and then further rewarded him by actually letting the motor run for ten or twelve seconds.

"There you are, Jack. I've done it for you," said Sam triumphantly.

"Done what?" asked the old repairman in a tone of contempt. "You don't call

making her cough once or twice puttin' a machine in order, do you? Anyone can climb on a machine and push the pedals till he's almost blue in the face and then because she gives a puff say that he's fixed things up. But if I turned that machine over to you right now I'll bet you couldn't run it."

"It's a go," said Sam, priming the carburettor afresh and climbing into the saddle once more. "Just watch me."

"I will that and I'll buy cigars for the crowd if you can get a puff out of her in ten minutes' steady working."

The conspirator who was stationed at the button took the hint; he leaned down and picked up the removable button so that neither he nor any of the audience would now tread upon it by mistake.

Sam took a last preliminary look over the machine and then set to pedalling. After what seemed to be almost ten minutes pedalling, which was really about two all told, he clambered down again in disgust and set to work to hunt for trouble. He made directly for the contact breaker and the man behind the scenes seeing his cue immediately inserted the button and stood on it, completing the circuit. In consequence, after Sam had carefully removed the plug and set it on the cylinder head, lifted off the contact breaker cover and felt all the connections for looseness, he found that the spark which resulted at the plug when he ran the machine by using the pedal as a crank left nothing to be desired. It was fat, hot and occurred at exactly the right moment every time. To make assurance doubly sure, Sam hauled forth his meter from an inner pocket and tested the battery—it was new and that settled the question of ignition. He returned the various parts to their proper places and the button behind the scenes was again released.

"Seven minutes," called out old Jack.

And with a final thump at the carburettor tickler and inlet valve stem Sam jumped on the machine and began pedalling as if he were making a running start in a mile race.

"Eight minutes," came the call and it found him pedalling as if the devil were

after him. The audience was enjoying the situation hugely.

"Go it Sam. Beat him out. You'll do the mile under 55 at that rate," were some specimens of the encouragement that was hurled at him, while many of the spectators were too convulsed with laughter to give vent to their sentiments. One of the schemers had a co-conspirator's head under his arm and was wildly endeavoring to ram his fist down the other's throat to prevent him from exploding.

At this point rather than be ignominiously counted out, Sam flopped out of the saddle all but exhausted. "You win, Jack," he said with what grace he could muster. "But now let me see you start the blamed thing, I'll bet you can't do it inside of an hour," he added defiantly.

"Make it a minute and I'll take you for anything you want," replied old Jack, climbing into the saddle with great deliberation in order to make sure that the properties were all arranged in advance.

"Same thing as before," sullenly replied the deposed expert.

"Well, take out your watch, Sam. Sixty seconds is the limit and give me the word whenever you're ready."

Interest rose to fever heat as the watch was reluctantly withdrawn from a pocket and held in full view pending the arrival of the second hand at the beginning of its travel for the minute.

"Go!" shouted everyone who could see the hand.

Taking things as easily as he could and without being in the slightest hurry, old Jack braced himself, gave the pedals a sharp turn without lifting the exhaust valve and the motor started in full cry.

"Tell me when the minute is up, Sam," he said tantalizingly, running the motor fast and slow as the whim seized him and adding to the torture by opening and shutting the muffler cut-out.

Sam paid the bets without a word and found that he had a very pressing engagement and would not be able to go along on the run.

Sooner or later the joke will come out but to this day Sam has never been able to find out how he was "cured."



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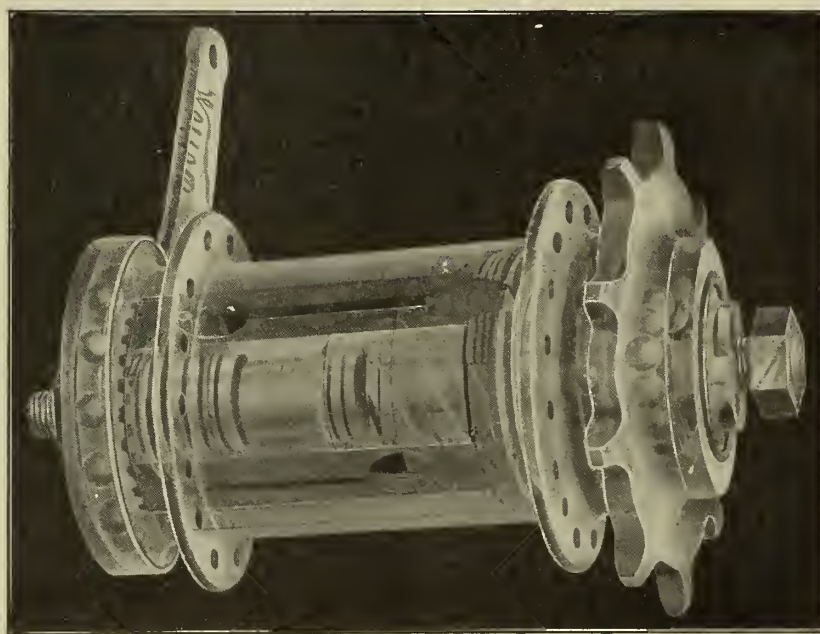
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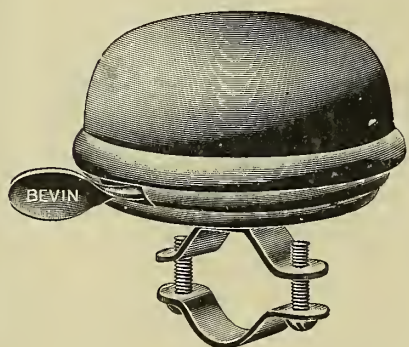
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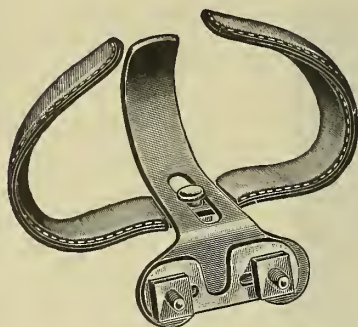
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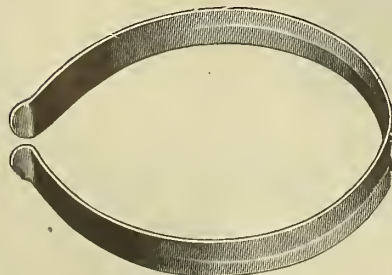
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Three Clubs Choose Officers.

The Los Angeles Motorcycle Club has elected the following officers for the ensuing year: W. G. Collins, president; Edward Kehl, vice-president; G. J. Swinnerton, recording secretary; J. H. Shafer, financial secretary; F. B. Brunner, treasurer, and E. M. Clinton, director.

These officials have been elected by the Detroit (Mich.) Wheelmen for the 1907 term: President, Robert L. Weyhing; first vice-president, Charles Schermerhorn; second vice-president, A. S. Burkart; secretary, M. A. Clark; treasurer, W. J. Lefler. Directors: W. J. Bristow, Irving Swan, H. B. Paige, Fred Richmond, J. W. Weitzel, Louis Schneider, William Steger, Dr. E. B. Smith, Charles Berdan and C. H. Lisch.

At its annual meeting last week the Providence (R. I.) Motorcycle Club elected officers as follows: President, E. L. Buffington; vice-president, F. E. Domina; treasurer, B. A. Swenson; secretary, W. L. Medhurst; captain, J. L. Pickering; first lieutenant, Jas. Nisbett; second lieutenant, D. V. Rieley. At the same meeting the club voted to incorporate and informally discussed the matter of promoting an endurance contest or some other long distance event during the approaching season.

Baltimore Club of Many Teams.

The members of the Lafayette Wheelmen of Baltimore, Md., have divided themselves into three mileage teams—the "Fly by Nights," under Captain Carter; the "Park Heights Shadow Chasers," under Color Bearer Albert F. Bennett, and the "Cork Pullers," under Lieutenants Harry and Edgar Boehm. These three teams will fight for the highest mileage during the year 1907, the winner to be given a banquet at the expense of the two losing teams. The Lafayettees are also possessed of another team dubbed the Boehm Quad, which has issued a rather safe challenge to meet any four-brother team in the State. It is composed of Harry E. Boehm, Edgar R. Boehm, Arthur Boehm and Howard Boehm the oldest of whom is 19 years and the youngest 15.

To the Lady Cyclists.

O! the neatness of their neatness when they're neat,
O! the fleetness of their fleetness when they're fleet;

But the neatness of their neatness
And the fleetness of their fleetness
Is as nothing to their sweetness when they're sweet.

—Irish Cyclist.

"Reckless" Invades the Rinks.

"Reckless Reklaw," whose name spelled backward suggests his identity, is "doing stunts" in the Western rinks. He also is promoting home trainer races in connection with his performances and at Akron, Ohio, was slated to ride a match with John Forbes, "the mile champion of that city."

We Want Your Order NOW

It is a great advantage to get your Bicycle Supplies now before the rush begins and we will grant terms that will make it worth your while. Will you call or write us what you require and we will submit prices which we guarantee to be as low or lower than equal quality can be bought elsewhere.

Bicycle Dealers Headquarters

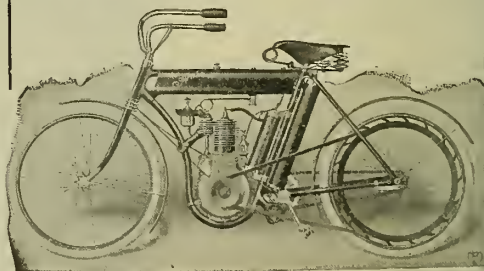
We have stuck to the Bicycle Business for 10 years and now that prosperity has come again we are leading the van. We have increased our sales year by year and are to-day the largest distributors of Bicycles and Bicycle Sundries in the East. Ask any dealer where he can always find what he needs—ten to one he will say "Go to the 'Sporting Goods Co.'"

We will exhibit at Madison Square Sportsman Show, March 1 to 9.

17 Warren Street, New York



ARMAC BALANCE



Draw a Line from hub to hub of the wheels of any ARMAC Motorcycle and you will immediately see that the weight of motor is placed close to the ground, below the center of gravity, giving that easy steering, perfectly balanced machine.

Motor Is Not a part of frame construction, therefore rider feels absolutely no vibration and owing to position of rider and motor being hung in loop, you can turn sharp or slippery corners with a feeling of perfect safety and speed that you would not dare attempt on a machine where motor is placed in frame construction above the center of gravity, making it top heavy and hard to steer or balance.

There Is Merit in every line of ARMAC construction. Let our agent convince you or borrow your friend's ARMAC for a few moments and convince yourself. Send for catalog "C."

ARMAC MOTOR CO.

472-8 Carroll Avenue,

CHICAGO.

"The A B C of Electricity" will aid you in understanding many things about motors that may now seem hard of understanding. Price, 50 cents. The Bicycling World Co., 154 Nassau Street, New York City. †

FEB 8 1907
PATENT OFFICE

THE BICYCLING WORLD and MOTORCYCLE REVIEW

FOUNDED
1877

U S Patent Office
Department of Interior

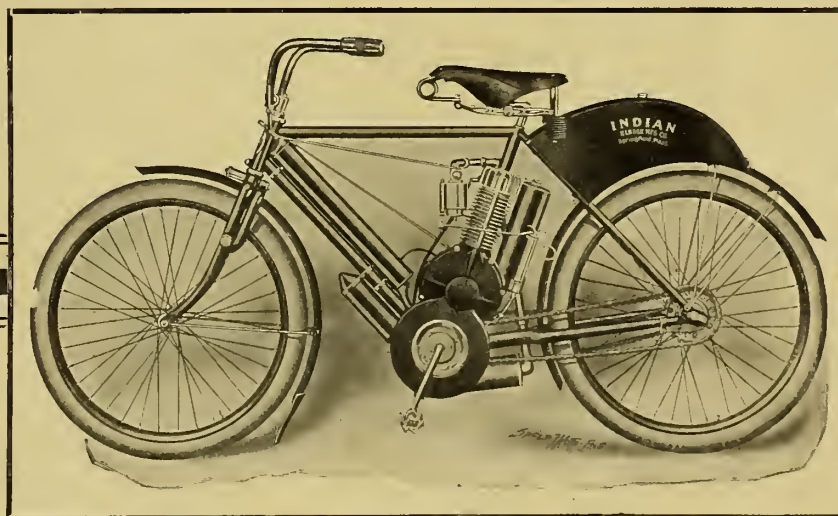
Incorporating THE WHEEL, the AMERICAN CYCLIST and the MOTORCYCLE MAGAZINE.

Vol. LIV
No. 21

New York, N. Y., Saturday, February 17, 1907.

\$2.00 a Year
10 Cents a Copy

FOR REAL JOY



THE INDIAN

1907 Catalog deals quite fully with its joy-giving qualities

Hendee Manufacturing Company, Springfield, Mass.

New York Distributors, F. A. BAKER & COMPANY, 37 Warren Street

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HARTFORD, CONN. U.S.A.

IN BICYCLE TIRES

There are numerous grades below the standard of Hartfords; but not any grade above them.

The reputation of Hartford Dunlop and Clincher tires is not merely national. It is international—universal—the strongest possible recognition of quality consistently sought and absolutely maintained.

All other things being equal, which bicycle store in the average progressive city does the best all-around business?

We favor the opinion that the one carrying the best stocks and knowing the right way to present them to customers has all competition wondering why its own trade is overly light.

If you are not posted on our complete line, suppose we get acquainted at no expense to you, and no trouble to us?

By the way, have you thought of the economy and convenience of buying a full line from one house—especially when that house has ten branches conveniently located throughout the United States? These branch houses save time and money to both of us; they are in charge of direct representatives of the company, and our well-known headquarters policy covers them all.

The Hartford Rubber Works Co.
HARTFORD, CONN.

BRANCHES: New York, Boston, Philadelphia, Buffalo, Chicago, Cleveland, Detroit, Denver, Los Angeles, San Francisco.

AGENCIES—Gugler Electric Mfg. Co., Minneapolis, Minn.; Mercantile Lumber & Supply Co., Kansas City, Mo.; Alexander-Elyea Co., Atlanta, Ga.; F. P. Keenan Co., Portland, Oregon; Charles L. Seeger (Compania Mexicana De Vehiculos Electricos), City of Mexico.

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is one of the best months in the year
during which to consider
the subject of

Defender Special



New Oxford

Already they are being called for in
many parts of the country and it is
a matter of comparatively few days
before the call from all parts will
be heard and felt.

BE WISE, MR. DEALER, BE WISE!

KOKOMO RUBBER COMPANY,

Kokomo, Ind.

NO BICYCLES

as good as

Pierce Bicycles

can be purchased
at the price of

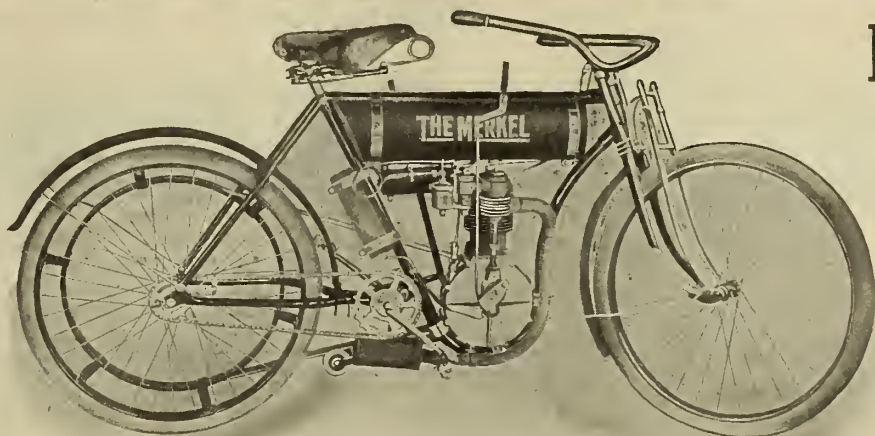
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There is about them that "air" and distinction of superiority that is undeniable and that serves to sell them without much argument—a fact which should appeal to enterprising dealers. The superiority which is so manifest is not a mere matter of good fortune. It is the result of painstaking effort and unswerving aim to produce the very best.

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BUFFALO, N. Y.

F. A. BAKER & CO., New York, representatives for New Jersey and New England.
THE UNION SUPPLY CO., Toledo, O., representatives for Ohio, Michigan and Northern Ohio.
TOM BOTTERILL, Denver, Colo., representatives for Denver, Colo., and adjacent territory.
ALEXANDER-ELYEA CO., Atlanta, Ga., representatives for the South.
W. F. CULBERSON, Mgr. Pierce Cycle Co., San Francisco, Cal., representative for the Pacific Coast.

1907**Model****Merkel
Motor
Spring****Spring
Frame
and
Fork**

3-H. P.—Complete—Price \$185.00, Spring Fork \$15.00 extra.

SPEED—Variable from 5 to 50 miles per hour, positively regulated by grip control, perfectly adapted for road work and racing.

SAFETY—Tire construction, designed so as to carry maximum loads in excess, in actual service; with the strong steel frame there is absolutely no chance for a break down.

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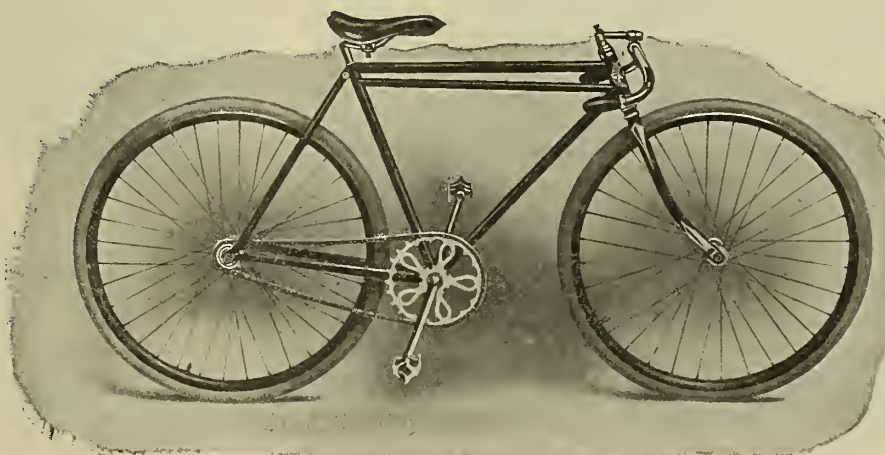
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1907 EMBLEM BICYCLES

ARE RIGHT.

**Model 43
Truss Frame**



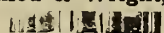
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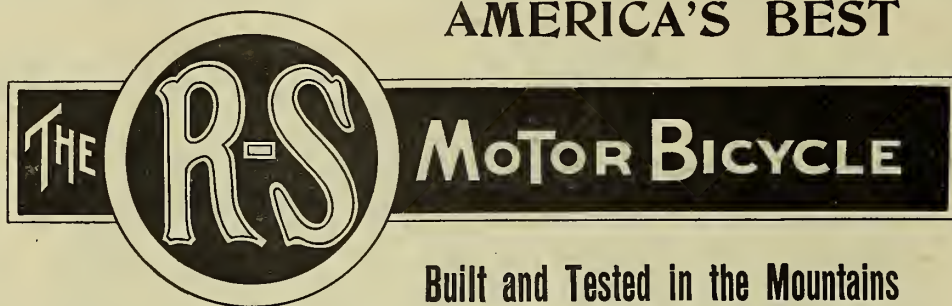
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Three Models, Price from \$210 Up

Wise Dealers Sell Them

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READING STANDARD BICYCLES

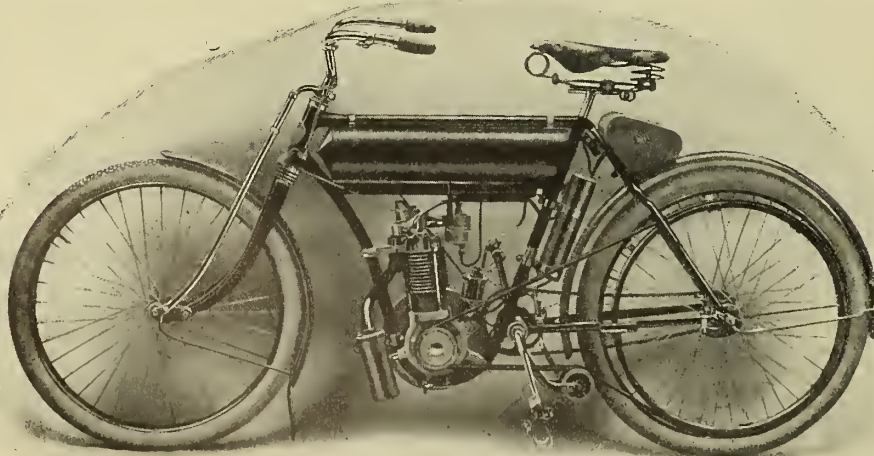
Five Models, Price, \$25 to \$60

The Reading Standard Truss Frame is the Most Scientific

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 **THAT**

is what "The Bicycling World"
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Yale-California

and those who know the machine
best know how thoroughly it has
made good.

CAN YOU AFFORD TO PASS IT IN YOUR RECKONING OF 1907 MOTORCYCLES?

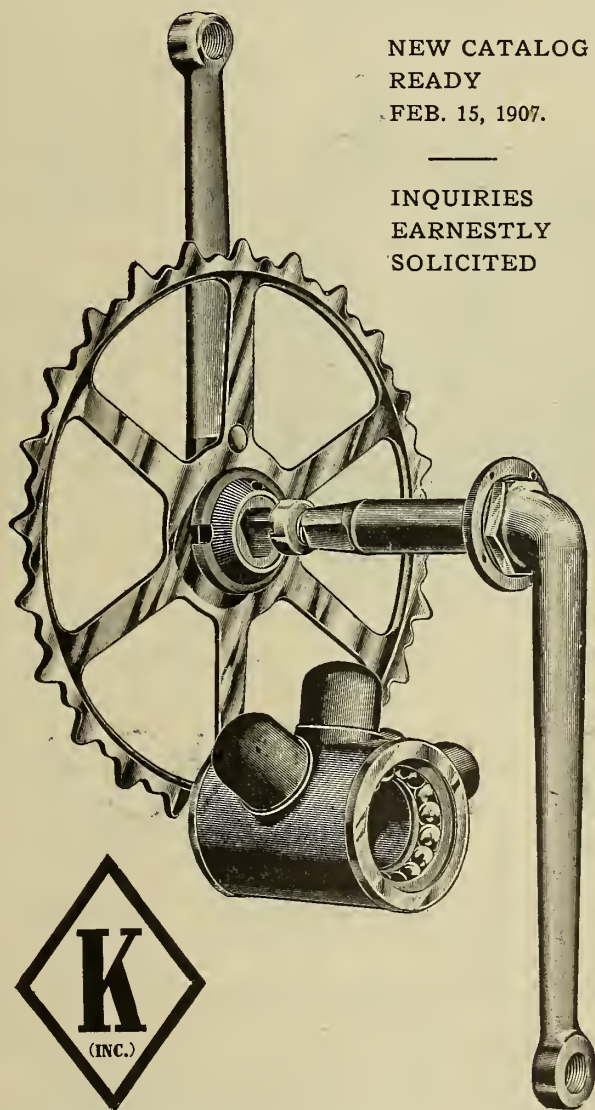
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F. A. BAKER & CO., 37 Warren Street, New York, Distributing Agents for Greater New York and Long Island.

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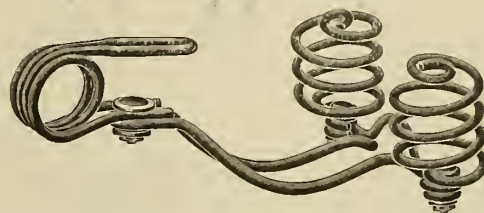
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The Easiest Saddle Spring Ever Produced



One Set in a Box, Nickel Plated or Black Enameled

ADJUSTABLE TO FIT
 ANY SADDLE

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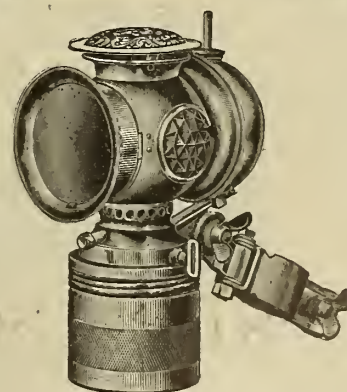
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100 Ft.
 Ahead
 Brilliantly
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Send for our complete catalogue which tells all about the
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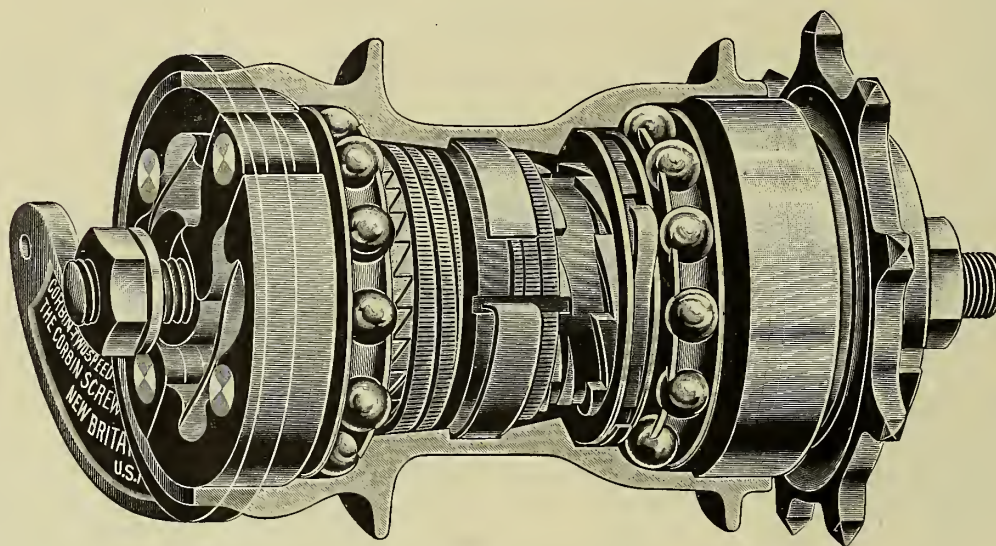
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to choose from—
a single or a two-speed coaster-brake



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in every cycle establishment in the land
during the months ahead, it will not be
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There honestly isn't any other oil equal to "3 in One" for lubricating, cleaning, polishing, and preventing rust. Every customer is bound to learn this—and go where he can get "3 in One" without quibble or query. "3 in One" profits are 50 per cent. and 100 per cent. We will advertise for you. Write us to-day.

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RELIABLE AND COMFORTABLE

The kind that "get you there and back." We have a proposition on these that will interest you

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1907 Chainless Bicycles

READY FOR DELIVERY

They are the most satisfactory for Dealers to sell and for Riders to use

Columbia, Cleveland, Tribune and Rambler Catalogs Now Ready

OUR LINE

Columbia	\$40 to \$100	Rambler	\$40 to \$100	Imperial	\$25 to \$40	Hartford	\$25
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Pope Manufacturing Co., Hartford, Conn.



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The Standard Wrench for Bicycle and Motorcycle

Most extensively used wrench on the market.

Fully guaranteed

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132 Valencia Street

FRANK MOSSBERG COMPANY,
ATTLEBORO, MASS.

CHICAGO OFFICE
116 Lake Street

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We desire to notify the trade that our suit against the Continental Rubber Works of Erie, Pa., under the Tillinghast Patents is still pending, and that purchasers and users are equally liable for infringement.

The following manufacturers are licensed to make and sell single tube tires under the Tillinghast Patents:

Hartford Rubber Works Co.

Diamond Rubber Co.

Fisk Rubber Co.

Pennsylvania Rubber Co.

Indiana Rubber &

Insulated Wire Co.

Goshen Rubber Works

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Goodyear Tire & Rubber Co.

Kokomo Rubber Co.

International Automobile &
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Morgan & Wright.

Boston Woven Hose

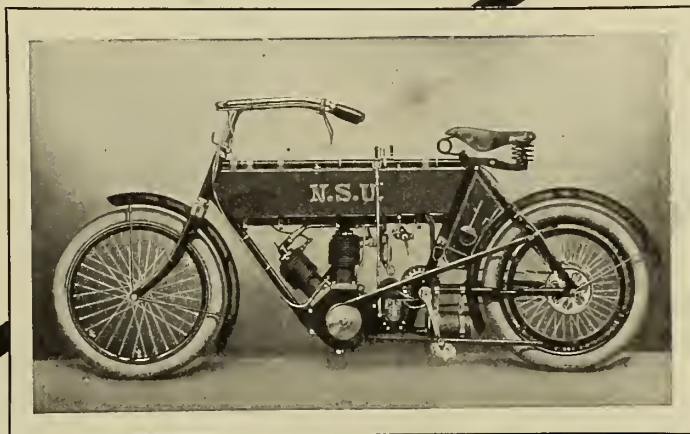
& Rubber Co.

SINGLE TUBE AUTOMOBILE & BICYCLE TIRE CO.

N. S. U.

IN USE

Your
1917 Mount
should be
an **N. S. U.** with
Magneto
Ignition



The Owner
of an **N. S. U.**
with Magneto Ignition
writes in "THE
MOTOR CYCLE"
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"Since October, 1905,
I have ridden well over
19,000 miles, and I
have never had the
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the Ignition."

Over 10,000

Let us send you our Catalogue with particulars of the 1907 Models

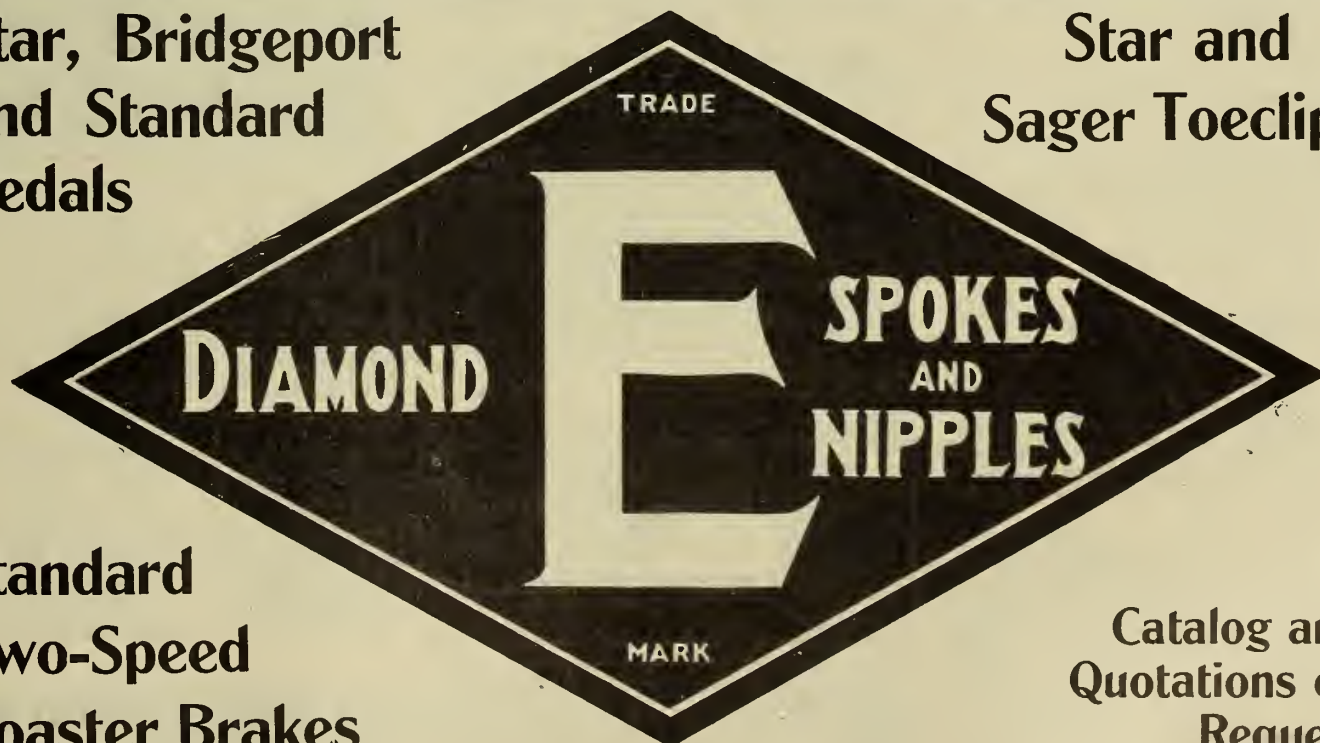
N. S. U. Cycle & Motor Company

78 Charlotte Street,

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Star, Bridgeport
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Standard
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THE STANDARD COMPANY
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10 cents per line; cash with order.

FOR SALE—The most complete and thoroughly equipped bicycle store in Greater New York. Absolutely no competition. First class trade; good prices, and a shop that is a shop in every sense of the word, and not a makeshift. A bonanza for an energetic party. Inspection cordially invited. Absolutely the only reason for selling, sickness. N. C. N.P., 498½ 6th Ave., Brooklyn.

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FOR SALE—Wheelmen's Company, Indianapolis, Indiana. On account of the death of Ben L. Darrow, the entire business, stock and good will of the Wheelmen's Co. is offered for sale. Good mail order business, both domestic and foreign, complete mailing list of over 150,000 names. Full stock of standard goods, supplies, and best line of repair parts in the world. A number of profitable side lines. A great bargain for any one prepared to continue the business, either here or elsewhere. For further information, address E. A. WERT, Manager Wheelmen's Co., Indianapolis, Ind.

MOTORCYCLE EMPORIUM—Fifteen second-hand machines, all makes for sale. Complete stock of parts for Indians, R-S, Ramblers, Warwicks and Thors. THE TIGER CYCLE WORKS CO., 782 Eighth Ave. New York distributors of CURTISS SINGLE AND DOUBLE CYLINDER MOTORCYCLES. 1907 models now in stock.

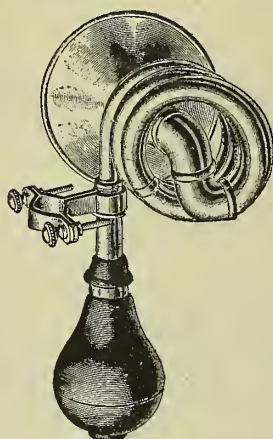
BARGAIN — Warwick, \$75.00. E. C. PUTNAM, Millbury, Mass.

1906 INDIAN; has been overhauled and is in first-class condition; guaranteed, \$150.00. Indian tri-car, \$60.00. Other Indians from \$100.00 up. Parts and repairs for all makes of motorcycles. GEO. B. PIEPER, 1201-03 Bedford Avenue, Brooklyn, N. Y.

SAVE CHAIN TROUBLE by using Ball Bearing Fibre Idler, ready to apply to Indian or R-S motorcycles. For cut and prices apply to A. C. MOUNT, 1158 Washington Street, Elizabeth, N. J.

1907 INDIAN AND YALE MOTORCYCLES; order from me now for early deliveries; send for catalogues. 1906 Indian, \$125, others \$100 up. One shop-worn Yale, like new, \$160. Full line of parts and sundries. F. A. M. registered first-class repair shop No. 1. WIDMAYER, The Motorcycle Man, 2312 Broadway, New York City.

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French Horn

A Small Horn with a Bull Frog Voice.

3-inch Bell\$3.00
4-inch Bell\$3.50

Send for Prices and Catalogue of Motorcycle Supplies.

F. A. BAKER & CO.
No. 37 WARREN STREET, NEW YORK

HIGH GRADE

wheels must have the best equipments.

There is nothing that gives more value for the money than the use of the

MORSE TWIN ROLLER CHAIN



NOISELESS IN MUD, WATER OR DUST AND ALWAYS EASY RUNNING

The only chain having Frictionless Rocker Joints. Insist on having the Morse Twin Roller. Fits regular sprockets.

Send for Catalogue and Trade Price to

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For testing dry cells, use the
Eldredge Battery Ammeter
0 to 30 Amperes
Indicates in either direction of current.
Price \$3.50, delivered.
Eldredge Electric Mfg. Co.
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are the most satisfying chains ever applied to
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DUCKWORTH CHAIN & MFG. COMPANY
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Ask for Catalogue of Bicycle and Motorcycle Parts and Sundries. We want every dealer to have our Monthly Bargain Book. Write us.

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DETACHABLE
Motor Cycle
Tire and Rim**



Tubes that cannot be pinched.
Rims that positively cannot be buckled.
Tires that can be applied or removed in less than twenty (20) seconds.

Tires that will not rim cut or leave the rim even though ridden deflated.

Casings built mechanically correct on round forms, therefore no stretching possible and no subsequent bulging of tubes causing blowouts—the bugaboo of motorcycle riders.

Ask L. J. MUELLER—the transcontinental record holder; he knows.

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Motor
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are made on the same principle as the justly celebrated Goodyear Auto Tire; quality of material used the very highest; actually more than 20% greater cost than any motorcycle tire on the market. These tires on our own patented rims form an equipment that make serious tire trouble a thing of the past. Specify Goodyear Detachable Tires and Rims on your machine and you will get started right. We have a special proposition to riders: Give us your name and address and it will be forthcoming.

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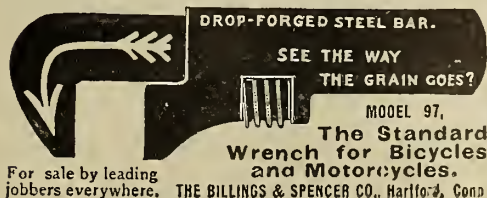
Fowler-Manson-Sherman Cycle Mfg. Co.
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Write for terms.

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Bicycle Fittings
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Worcester Pressed Steel Co.
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HAVE BEEN RINGING SINCE 1776.
We Make Them.
LIBERTY BELL CO., Bristol, Conn.

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Splitdorf Mica Plug
say it is the most perfect plug on the market. Short circuiting and broken insulators are absolutely done away with.
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Ask Dept. I for Catalog

CATALOGUE.

Thor Motor and Parts for Motorcycle and Hubs and Parts for Bicycle on application

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WHO would think of building Bicycles, Coaster Brakes, Lawn Mowers, Sewing Machines, and etc., etc., without using



The
**Star Ball
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WHO? Tell us.



The **STAR BALL RETAINER CO.**
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If You are Interested in Automobiles,
THE MOTOR WORLD

Will Interest You.

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Two Books for Motorcyclists

An elementary knowledge of electricity will go far towards making for the fullest measure of motorcycle satisfaction.

"The A B C of Electricity"

will impart this very knowledge.

The book is entirely non-technical and can be understood by the man who does not know "the first thing" about electricity.

Price, 50 Cents.

If you ride or sell,
or intend to ride or sell
motor bicycles,

"Motorcycles and How to Manage Them"

is the very book you need.

Every page teaches a lesson. Every illustration
"speaks a piece."

Price, 50 Cents

THE BICYCLING WORLD CO., 154 Nassau St., New York.

TO THE LIVE MAN

interested in cycling who realizes the value of keeping informed
about all that concerns it this blank will be hint enough:

THE BICYCLING WORLD COMPANY,
154 Nassau Street, New York.

Enclosed find \$2.00 for which enter my subscription to
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Address _____

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FAST TRAIN SERVICE**

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Pullman Parlor or Sleeping Cars on all
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FOUNDED 1879

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THE BICYCLING WORLD and MOTORCYCLE REVIEW

FOUNDED 1877

Volume LIV.

New York, U. S. A., Saturday, February 2, 1907.

No. 19

STRETCH IS TO BE LESSENER

Rubber Goods Likely to Be Merged With United States Rubber—Negotiations Now Under Way.

In all probability, the Rubber Goods Mfg. Co. shortly will be merged with the United States Rubber Co. Negotiations to that end now are under way and the matter will be decided by the stockholders at their annual meeting in April.

The bicycle trade's interest in the transaction is due to the fact that the Hartford Rubber Works Co., Morgan & Wright and the G & J Tire Co. are units of the Rubber Goods Co., and while the pending merger may appear sensational it really is nothing of the sort. For as a matter of fact, United States Rubber already practically owns Rubber Goods, having acquired 90 per cent. of its stock some two years ago.

The two parent companies have, however, proceeded along non-conflicting lines, the subsidiary companies of United States Rubber having been devoted to the production of boots, shoes, etc., while the Rubber Goods units have manufactured tires and mechanical goods. The latter company under the presidency of Charles H. Dale, has been placed on a firm and profitable basis and is now earning dividends not only on its preferred but on its common stock.

The consolidation is likely to cause little or no change in the management of the several plants nor in the personnel of the companies.

Motorcycles at the Chicago Show.

According to the official list, there will be but six motorcycle exhibits in evidence at the Chicago Automobile Show, which opens tonight, viz: Consolidated Mfg. Co., the Yale-California; Hendee Mfg. Co., the Indian; Reading Standard Cycle Mfg.

Co., the R-S; Fowler-Manson-Sherman Cycle Mfg. Co., the Manson; Aurora Automatic Machinery Co., the Thor and the Harley Davidson Motor Co., the Davidson. As usually is the case, however, it is likely that one or more additional exhibitors will put in a belated appearance at the eleventh hour.

New Departure Absorbs Liberty.

On Monday of this week, the plant and business of the Liberty Bell Co., Bristol, Conn., was purchased and taken over by the New Departure Mfg. Co., of the same place. The manufacture of the New Departure bells now will be concentrated in the Liberty factory, thus affording room in the New Departure plant which is needed for the increased production of coaster brakes and other specialties. Under the new order of things, E. D. Rockwell, formerly general manager of the Liberty Bell Co., will become manager and superintendent of the New Departure bell department. Originally he was associated with his brother, A. F. Rockwell, in what was then the New Departure Bell Co., but in 1897 they separated and E. D. formed the Liberty Bell Co., which was capitalized at \$50,000 and of which M. L. Peck was president. The New Departure Co. has applied to the legislature for authority to increase its capital to \$1,000,000.

Ricks Become a Corporation.

F. F. Rick & Co., the Buffalo jobbers, have filed articles of incorporation under New York laws, which place their capital stock at \$10,000. Frederick F., Otto R. and Thomas A. Rick are named as the corporators.

The Retail Record.

Coldwater, Mich.—Rogers & Hunt; Rogers's interest purchased by George Wicker, Escanaba, Mich.—L. K. Edwards; new store in Masonic block.

Medina, N. Y.—Charles Hill; store destroyed by fire.

TOWARD A FINAL DECISION

Termination of Coaster Brake Litigation in Sight, Through Commissioner's Ruling—Interests Involved.

One more of those apparently endless decisions in the Copeland-Townsend-Robinson interference case has been handed down by the Commissioner of Patents and as it orders that a limit of appeal be fixed, it appears that a termination of the litigation is in sight. The case which involves certain features of a coaster brake is of interest, chiefly because it is a fight in which respective litigants represent the Pope, New Departure and Morrow interests. The Patent Commissioner's most recent decision is as follows:

This case comes up on appeals by Townsend and Copeland from the decision of the Primary Examiner denying their motions to amend their applications under Rule 109, also on petitions by the same parties that—" * * * the Primary Examiner's action refusing to permit your petitioner to amend his application and to include his amended claims in the interference, be revised and reversed, or that the Examiner be directed to reconsider his action and if, on such recommendation, he is still of the opinion that your petitioner's motion should be denied, that he be directed to set a limit of appeal in order that your petitioner's right of appeal to the Board of Examiners-in-Chief may be perfected."

"Motions by Townsend and Copeland to amend their applications under Rule 109 so as to include as additional counts of the interference twelve claims made by Robinson were denied by the Primary Examiner on the ground that said claims are not patentable to either Townsend or Copeland in view of Robinson's patent, No. 723,408. Townsend and Copeland thereupon requested a reconsideration of the

Examiner's action. This request was denied by the Primary Examiner, who held that the rules do not provide for a reconsideration of motions brought under Rule 109 and that reconsideration provided for in Rule 124 applies only to motions for dissolution.

"It is well established that no appeal lies to the Commissioner in the first instance from the action of the Primary Examiner denying motions on grounds involving the merits of the claims. The appeal and so much of the petition as asks that the decision of the Examiner be revised and reversed are accordingly dismissed.

"It remains to consider that portion of the petition which asks that the Primary Examiner be directed to reconsider his actions and, if of the same opinion, to set a limit of appeal in order that appeal may be taken to the Board of Examiners-in-Chief.

"Formerly in case of motions under Rule 109, as well as in motions for dissolution, if the matter was an appealable one the case was in condition for appeal after the first decision of the Examiner. A different course of procedure was established by Rule 124 as amended June 12, 1906, (122 O. G., 2690), in the case of motions for dissolution. The petition presents the question whether this course of procedure is also applicable to motions under Rule 109. The reasons which led to the change in Rule 124, set forth in my decision in the case of *Newcomb v. Thompson*, (122 O. G., 3012,) apply with nearly the same force to motions under Rule 109. As stated in the case of *ex parte Sutton, Steele, and Steele*, (121 O. G., 1012,) the purpose of Rule 109 is to avoid a second interference.

"No difficulty is anticipated in applying the procedure of Rule 124 to motions under Rule 109. In the case of motions for dissolution the claims are already in the applications. Under Rule 109 the claims are presented by a proposed amendment which accompanies the motion, and the practice will require the entry first of the amendment in the application. The rejection of the claims and subsequent procedure will then follow the practice indicated in Rule 124. If the Examiner holds that the claims are allowable to the party bringing the motion, under the former practice the amendment was refused admission, while under the practice announced in this decision the amendment will be entered and the claims rejected. In neither case would the claims be added as counts to the interference unless the decision of the Examiner is reversed on appeal. The practice indicated above is not believed to be inconsistent with the present wording of Rule 109. The rule states that—"On the admission of such amendment the intervention shall be included in the interference."

"The entry and rejection of claims is not such admission of the amendments as the

rule contemplates in order that the claims may be added to the interference.

"The Examiner is directed to enter the amendments of Copeland and Townsend in their applications and, in view of his decision of record, to reject the claims, also to set a time for reconsideration, and if after reconsideration he adheres to his original decision, to finally reject the claims and fix a limit of appeal in accordance with the provisions of Rule 124.

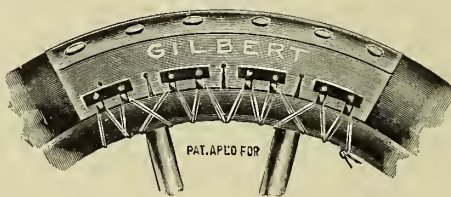
"The petition is granted to the extent indicated."

Articles That Add to Convenience.

While all manner of special articles of apparel have been designed for the motor car user, few of them have met the needs



of cyclists and motorcyclists as do the new specialties of the Gilbert Mfg. Co., New Haven, Conn., which are here illustrated.



Foremost of these is the waist length rubber cloth poncho with high, snug fitting collar, something that all save the "butterfly" riders long have felt the need of. The yoke neck-part is fitted with large



snap buttons, which make fastening or intentional unfastening easy.

For those who desire still further protection about the neck and head, a helmet is offered which forms a protection for the chest as well. It is made of fleece-lined rubber cloth.

The tire sleeve shown is made of tough, mineral chrome leather, fitted with non-skid rivets. The device is really laced over a ruptured shoe, or two of them applied

to an undamaged tire serve to make the latter completely non-skidding.

In addition to these specialties, the Gilbert people makes leggins, and a variety of waterproof covers, many of which are applicable to motorcycle use, among them, covers for tools and for spare inner tubes and spark plugs.

The Sign of Double Meaning.

One of the good stories that is going the rounds finally has been tacked onto a firm of New England bicycle dealers, who, like others of their kind, sell skates as a winter side line. Recently—so runs the tale—they became so enterprising as to affix the placard, "Cheap Skates," to a small swinging sign bearing the firm name, which then read thus:

Jones & Smith,
Cheap Skates.

It was several days before the double meaning of the word dawned upon them, and in the meantime the joke was repeated until the whole town had a good laugh. It had an advertising value, of course, but it was unintended, and, in a sense, unpleasant. This was a case whereby brevity produced wit, though it was not of a desired kind.

Guarantees Going to Seed.

On "the other side" guarantees have become fearful and wonderful things; in fact, several warranties are required for each bicycle, different parts of which are guaranteed for varying periods. Rudge-Whitworth, Ltd., the big Coventry manufacturers, have carried the thing to its logical conclusion by announcing a "ten year guarantee" on certain parts of their 1907 product while other parts are warranted for one year only.

How to Test Platinum.

A chemist's small test tube and a small quantity of strong nitric acid are all that are required to test the quality of platinum. The acid is placed in the tube into which some filings of the platinum also are inserted. The tube is then held over a forced gas flame. When the acid boils, the platinum if of poor quality will dissolve and leave a green tint. If pure, the heat will have no effect on the metal.

Where the Profits Were Doubled.

According to a London print, fourteen of the leading firms in the cycle trade made a net profit in 1906 aggregating £328,446. The net profits of the same firms in the previous twelve months only amounted to £158,301, or less than half last year's total.

To fill the vacancy that existed, C. D. Monson has been appointed manager of the G & J Tire Co.'s Detroit branch.

YEAR'S EXPORTS SHOW INCREASE

It Is Not a Large One But It Holds Hope of Better Things—Where the Gains Were Made.

On the principle that small favors should be thankfully received, there is a basis for thankfulness in the past year's export figures as compared with those of the year previous. Although the month of December, 1906, shows a loss of \$26,598 as compared with the December of 1905 yet the total exports for the year were greater than those of 1905 by \$84,050, a most encouraging symptom. A year ago, the figures for 1905 recorded a drop of \$301,324 from the preceding, and the fact that the latest figures prove that the falling off in exports has been checked entirely and that they are really on the increase again, is ground for optimistic views of the future.

Japan is no longer the biggest customer for American bicycles. The United Kingdom, which has in the past been running Japan a close second, is now in first position with a total for the year of \$271,474, an increase of \$70,000 over last year. Japan's purchases fell off about \$53,000, bringing the total down to \$209,691, second place. Through the entire list, losses at one point have been met by gains at another. Canada, which has long been a declining market, cut American purchases in half and France's figures dropped 73 per cent. Cuba and the West Indies fell off to some extent, and Americans have not been able to hold their own in Australasia and Oceania.

But the cheerful side of the picture is presented in such cases as the swift rise of the Netherlands from \$48,937 to \$118,966, an increase of over 143 per cent. Mexico bought \$41,552 more of American bicycles and parts than in 1905, the total amounting to \$106,393. Germany, Italy and "Other Europe" are again increasing customers. The South American trade, too, has evidences of health.

The detail record is as follows:

Cycles, and Parts of—	December—	12 Mos. End'g December—
Exported to—	1905.	1906.
United Kingdom	\$14,655	\$17,875
Belgium	3,232	3,008
France	7,817	541
Germany	3,700	2,256
Italy	3,747	3,362
Netherlands	7,230	3,758
Other Europe	22,592	17,736
British North America	2,553	1,402
Central American States and		
British Honduras	707	4,376
Mexico	4,921	7,162
Cuba	3,219	2,268
Other West Indies and Bermuda ..	2,037	2,184
Argentina	2,600	590
Brazil	397	824
Other South America	1,639	976
Japan	11,301	8,779
British Australasia	15,678	9,592
Other Asia and Oceania	2,107	716
Other Countries	48	553
Total.....	\$110,180	\$83,582
		\$1,621,820
		\$1,320,496
		\$1,404,546

Troxel Bids for Motorcycle Trade.

Heeding the signs of the times, the Troxel Mfg. Co., Elyria, Ohio, has added a motorcycle saddle to its line; its construction is well shown by the accompanying

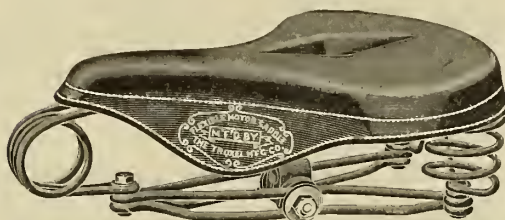


illustration. While it is flexible, the makers assert that it is so made that there is no strain on the leather and that therefore adjustments are never required.

Motorcycle tool bags also have been added to the Troxel productions. They are made in two sizes of the best grain



leather—the smaller one being designed to be attached to the rear of the saddle, while the larger, which is a roll rather than a bag, is intended for attachment to the top bar of the bicycle frame.

Foreign Measures and American.

Although oft repeated, few Americans have the equivalents of the measures employed in Europe at their fingers ends. Thus:

- 1 millimetre equals .03937 of an inch.
- 1 litre equals 1.76 pints.
- 1 kilogram equals 2.2 pounds.
- 1 kilometre equals $\frac{5}{8}$ of a mile.

Innovation in Piston Making.

The French firm of Forges-de-Denain, are said to be building motors fitted with pressed-steel pistons. For this construction it is claimed that there is a considerable augmentation in strength with an actual reduction in weight.

PUNCTURE THAT LED TO FORTUNE

Story Teller Weaves a Tale of Thomas's Tire Trouble That Earned Him Fame and Riches.

Punctured tires have been responsible for many stories. This is one of them. It was "turned loose" during the recent New York automobile show and makes a puncture the basis of the fame and fortune amassed by E. R. Thomas, the pioneer manufacturer of motorcycles and now one of the big figures in the automobile industry.

According to the story he who is now the Buffalo motor car builder was living in Evansville, Ind., when the bicycle wave submerged the country. Being related to H. A. Lozier, he ordered one of Lozier's Cleveland bicycles. After impatient waiting, he had the satisfaction of uncrating it himself and mastering its mechanism and operation. His first ambitious effort as a novice started him on a ride into the country. Eight miles or so out of town his tire went flat, and as he had not mastered the art of making roadside repairs, he had to trudge it all the way back to town, his choler rising at every step.

He was so mad when he got back that he did not stop at his home but made straight for the telegraph office to give Lozier an expression of his feelings.

"If I could not make a better bicycle than you I would quit the business," is the language of the telegram Thomas is said to have sent.

Lozier's come-back read:

"If you can make a better bicycle than I, come and do it."

Within two weeks Thomas was on the train for Toronto where one of the Lozier plants was situated. He soon became managing director.

Within a few years motorcycles began to attract the attention of bicycle builders, and Thomas imported and studied the motor tricycle that had been most successful abroad. Later he started the Auto-Bi factory in Buffalo, and foreseeing that tricycles would not prove generally practical on American roads, he "plumped" for motor bicycles.

The story tellers figure, therefore, that a flat tire was one of the cornerstones of the motorcycle business and of the Thomas fame and fortune. Good story telling usually requires an ingenious weaving of threads and there is no doubt about the weaving of this one.

Although the police commissioners of Toledo, Ohio, only recently mounted four "cops" on bicycles they have decided that they are not swift enough to meet the demands of the day. Accordingly it practically has been decided to dispose of them and replace them with motorcycles,

The Dealers Who Pinned their Faith to National Bicycles

in 1906

were the men who did business on

"THE SUNNY SIDE OF EASY STREET"

They had the bicycles with which to quickly answer the "Show me" demand—the bicycles that are not like the common run of bicycles—the bicycles that have individuality and talking points (which are merit points also) and which when sold stay sold and sell others.

**If Your Business Needs a Tonic, Why
Not Try the National Agency for 1907?**

NATIONAL CYCLE MANUFACTURING COMPANY
BAY CITY, MICH., U. S. A.

DO YOU KNOW

that you have only to specify them to get

The Fisk Tires

on Pierce, Columbia, National, Snell, Racycle, Iver-Johnson or
Reading Standard Wheels?

Our reputation for UNIFORM QUALITY, year after year, has induced these high-grade factories to carry a stock of Fisks. Our policy spells PROGRESS; in spite of their past high standard, Fisk Tires for 1907 will excel their predecessors. They will be the very best that years of experience, intelligent workmanship, and money can produce.

THE FISK RUBBER CO., Chicopee Falls, Mass.

Boston
Buffalo
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Springfield
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Seattle

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San Francisco

Atlanta
St. Louis
Los Angeles

Chicago
Montreal

THE BICYCLING WORLD and MOTORCYCLE REVIEW

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To Facilitate Matters Our Patrons Should Address us at P. O. Box 649.

NEW YORK, FEBRUARY 2, 1907.

For Relief in Pennsylvania.

Unless the motorcyclists of Pennsylvania are content to pay \$3 per year for the privilege of using the public highways and to carry the two big cast iron tags which the State provides, they must be up and doing.

The campaign for relief conducted by the Federation of American Motorcyclists has reached that point where every individual rider must now "put his shoulder to the wheel." It has made plain that the automobilists of the State will render no assistance. They are seeking increased speed and to obtain it are "playing close" to the Commissioner of Highways and deferring to his ideas in shaping the legislation they have in hand. Despite the radical difference in the size and shape of the two vehicles and despite the precedents that exist in other States, the Commissioner does not incline very favorably toward motorcyclists. He is disposed to have them bracketed with automobiles and impose on them the same fees and burdens; and, of course, his recommendations to the legislature will have considerable weight.

This fact makes it imperative that every motorcyclist in the State should bring to

bear every ounce of influence he possesses. The rider who does not see or write the Senator and the assemblyman from his district and ask their assistance in obtaining the desired relief, must bear part of the blame if no relief is obtained.

And as S. D. Bashore, the F. A. M. State Representative, says in his appeal for individual action of the sort, if the present campaign is not successful, there is small hope for relief in the future.

Such knowledge should be sufficient to arouse every motorcyclist in the State and bring to the members of the legislature a flood of appeals for simple justice such as will prove irresistible.

Anything that runs on two wheels always will be at the mercy of anything that runs on four of them. If a four wheeled horse drawn rig requires protection from automobiles, how much more necessary is it that the same protection be accorded the motorcyclist, who is at the mercy of the horse drawn rig as well? And what a fine discrimination it is to exact \$3 of the owner of a bicycle simply because it has a motor attached to it! In the event of accident, it is the cyclist who is the sufferer and he suffers not less because there is a motor on his bicycle.

Bicycles for Police Service.

Strange, indeed, is that lack of discernment in police methods which has so far restricted the employment of bicycles and motorcycles to the field of automobile chasing and the pursuit of speed violators, when they could so advantageously be employed in these duties which lie within the more vital and important functions of a police system.

Larchmont's interesting example of mounting its police on motor bicycles and its happy efficacy in banishing the burglar, affords a concrete example of the application of a principle that common sense alone would suggest and that simple arithmetic will demonstrate. If the theory of night police distribution of units contemplates that the men shall have routes or "beats" over which they are to travel rather than that they should be at fixed positions, it will be seen that by the provision of a method by which they can oftener make their rounds during a given period their efficiency is increased to a degree exactly corresponding with the increase of frequency. In fact, to abandon for a moment the mathematical idea, their efficiency is

increased to a degree more than proportional to the increase in frequency, since greater frequency of patrol may make the law breakers relinquish entirely their projects where the increase is in effect.

On the other hand, if, for any reason, it does not appear necessary to make the patrol periods at any point more frequent, the "beat" of the patrolman may be greatly increased if means are provided for greater speed.

In the smaller communities where the number of men doing police duty at night is at a minimum in proportion to the area, the use of the bicycle offers an increase in range and efficiency that makes it appear remarkable that it has not been more generally adopted. Every policeman mounted on a bicycle is equivalent to an addition of two men to the "force."

No practical objections can be offered that are not easily met. An officer can dismount from a bicycle in an instant. On streets that are unpaved he can ride on the sidewalk, or he can even walk if need be and with no difficulty go quite as fast as the usual policeman's leisurely gait. In case of an alarm he can get to the scene of trouble in the quickest time. Escaping offenders are more easily overtaken when the officer has a bicycle. The matter is one that dealers would do well to bring before the local authorities and that is worth exploiting generally.

Have not the cycling members of the New York City militia regiments sufficient influence or energy to bring about an indoor cycling meet? There is more action and excitement in one bicycle race than there is in a dozen foot races and the experience of the Buffalo regiments proves quite conclusively that it is the cycle racing that draws the crowd and makes the "gate" a rich one. Four or five thousand spectators is not an unusual attendance at Buffalo. New York would do fully as well if given the opportunity.

Harry Hewitt Griffin, an Englishman who is old enough to know better, urges that motor bicycles be styled "bicars" and tricycles "tricarcs." But why not go plumb daft while about it and entirely eliminate the word "cycle?" Griffin evidently is suffering from a severe rush of "automobilism"—another beautiful word that compares with "cyclism"—to the head.



THE WINTER ENTHUSIAST SEEKS OUT A SUMMER-TIME BEAUTY SPOT.

THE DOINGS ON THE BEACH

Curtiss, Back From Florida, Talks of His Experiences—Claims a Single Cylinder Mile in 1:02.

Glen H. Curtiss—his first name isn't George, despite the general impression to that effect—stopped in New York for a few hours on Monday last, en route from Florida to his home and factory in Hammondsport, N. Y. Although it was scarcely necessary, he confirmed the reports that the

no great capital was made of it at the time.

From what Curtiss said of it, riding an eight cylinder motor bicycle is not likely to become very popular. At high speed, he said, his machine set up a terrific and inexplicable vibration; it was so great that he admitted that it did not create wholly comforting thoughts.

W. H. Wray, Jr., of Brooklyn, N. Y., who shared with Curtiss the honors of the carnival, remained in Florida. Curtiss, on his two cylinder, secured the mile competitive record by beating Wray in 46½ seconds while Wray got the record by doing



W. H. WRAY, JR., THE RECORD HOLDER, AND HIS 14 H. P. PUGEOIT

Ormond beach speed carnival was practically a failure. Curtiss added that he did not think he ever would make the 1500-mile journey to participate in another one, even should one occur, which is extremely doubtful.

Curtiss said that in some way no notice had been taken of a mile in 1:02 which he made on his single cylinder motor bicycle on January 23rd and which had been officially timed. He expects to be able to obtain the necessary evidence to substantiate his claim.

Of the mile in 26¾ seconds, which he was reported to have made on his eight cylinder, 40 horsepower freak machine, he stated that he had no reason to doubt the correctness of the timing but that the performance was made in a private trial late in the evening and that he realized full well that it "did not count." Knowledge of the feat was fairly well known to those present at Ormond, he said, but in deference to the wishes of the venerable Mr. Stanley, one of whose cars holds the accredited mile record of 28¾ seconds, little was said and

44¾ seconds in an official trial. Wray sends word from Florida that he also has one of the fashionable "private trial records"—a mile in 32¾ seconds.

Some doubt seems to exist regarding the world's record for the mile. While Wray's figures are supposed to be the best, an assertion has reached the *Bicycling World* that the record really stands at 41 seconds having been made in Europe on the same machine—or a duplicate of it—which Wray rode—a 14 horsepower two cylinder Peugeot. Investigation now under way will clear the doubt.

Of the three motorcycle races that had been scheduled but one was decided. The other two had been postponed until Saturday because of a telegram from Brockton, Mass., which stated that if they were deferred until that day a special machine which had been built for speed purposes would be present to participate. Despite the postponement the machine did not arrive and the tragic accident to Fred Marriott in the Stanley steam "Bug" put an end to all thoughts of racing and records.

SITUATION IN PENNSYLVANIA

Motorcyclists Must Bestir Themselves if They Desire Legislative Relief—Dr. Bashore Points the Way.

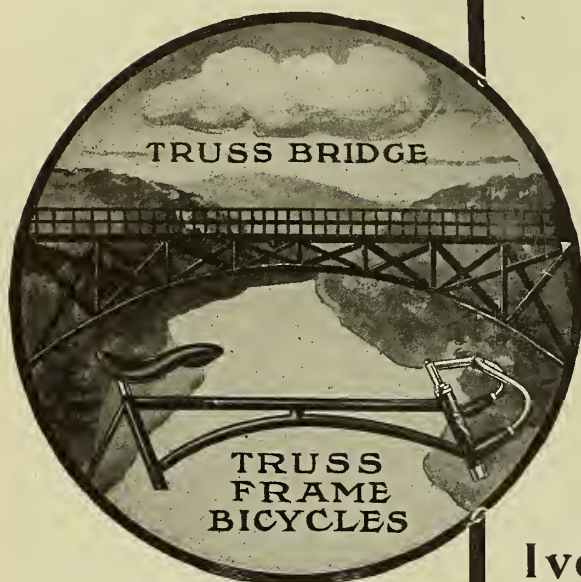
Because a lower fee for motorcycles will "complicate the work of his office," Commissioner of Highways Hunter, of Pennsylvania, thinks it quite proper that those little vehicles should be mulcted the same amount—\$3 per year—that is charged for big automobiles. Commissioner Hunter has to do with the application of the automobile law of his State. The Pennsylvania Automobile Federation does not wholly agree with Mr. Hunter but they do not like to disagree with him because he is helping them draft a new bill which shortly will be introduced into the legislature and which will lighten some of their own burdens. The Federation of American Motorcyclists has been striving to have a clause exempting motorcycles from its provisions included in the bill and the automobile organization hopes the F. A. M. will succeed as it may prove an "entering wedge" that may lead to the lifting of the restrictions on motor cars, but the automobilists can't afford to disagree with Mr. Hunter, and there you are!

This in brief is the situation in the Keystone State. It means that if the motorcyclists are to obtain relief of any sort, it must come of their own efforts. Dr. S. D. Bashore, of Palmyra, because of his keen interest and energetic efforts to reduce the oppression, has been appointed F. A. M. State Representative, and if the motorcyclists of the State will but rally around him in fitting strength, some relief should result. Dr. Bashore has called on them to do so in an urging which, among other things, says:

"We must show the members of the legislature that we are strong and earnest, and that a genuine demand for relief exists. If you want relief—if you do not desire to pay \$3 a year, to carry tags, etc.—we urge and beg that you at once see the Senator and Representative from your district and endeavor to have them commit themselves to the support of an amendment exempting motorcycles, which we will have introduced. If you cannot see them, please write to them, and have as many others do so as possible.

"The case is urgent; it is vitally important. If we are not successful this time, there is small hope for the future. Therefore, please 'get busy' and bring all your influence to bear. Don't depend on the other fellow. If you have any suggestions to make, we will welcome them. The F. A. M. will direct the campaign and 'pay the freight,' but the result rests largely with you and the other riders of Pennsylvania."

Strength



Rigidity

Ride Easily and Safely on the

IVER JOHNSON Truss Frame Bicycle

THE truss frame makes easier riding because it prevents loss of power through "give" or "spring" in the frame. It makes safer riding because the truss strengthens the bicycle frame just as it does the bridge. There is no play, no rack or strain, in an Iver Johnson Truss Frame. Write for catalogue illustrating and describing all 1907 Models. Dealers find this the best selling bicycle.

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Baker & Hamilton, San Francisco, Cal.



Gendron Bicycles

are the matured product of twenty years of continuous improvement and painstaking workmanship. Their worth is real. Their general appearance, style and finish is unexcelled. In perfection of bearings they are unapproached.

Apply for Their Agency Now

Gendron Wheel Co.

TOLEDO, OHIO

LARCHMONT'S BURGLAR CURE

Its Citizens Sleep in Security As a Result of Progressive Methods—Practical Police Gratitude.

Until recently, fashionable Larchmont, which is near enough to New York City to be considered a suburb, has been a rich playground for burglars. The nocturnal gentry would take a run down to Larchmont any evening that they felt in need of coin or booty. Also if they felt a particularly large champagne thirst, bigger than they could satisfy with their normal amount of drink money, they could be sure of finding enough of the bottled bubbles in some Larchmont householder's wine cellar or drink cupboard. It was a very handy arrangement, with no difficulties, since the few local cops were scattered over a large area none of which they were able adequately to protect.

While this was pleasant for the night visitors, it had annoying features for the Larchmonters, who in common with most people, do not approve of systems which permit the other fellow to enjoy what you pay for. Burglaries became so frequent that those whose houses had not been burglarized were under something of a social stigma as not having good enough wine to suit the discriminating taste of the visitors and no valuable collection of articles of virtu or family jewels that might tempt them in spite of poor wine. Those who had been paid the subtle compliment of a call, however, being thus sure of their position, grew anxious to discourage repetitions of such burglarious flattery, and they cast about for some effective method of doing it.

Self-firing guns and burglar traps that dealt out various kinds of violence were considered, but they all seemed fraught with dangerous possibilities to fathers and sons who on occasions had to sit up with sick friends in New York, which involved late home-comings. Slight additions to the local constabulary likewise seemed idle, as a policeman was apparently required at every house all the time.

It so happened, however, that C. H. Dale, president of the Rubber Goods Mfg. Co., resides in Larchmont and possibly his interest in tires may have caused the solution to occur to him. His idea was to equip the Larchmont cops with motorcycles so that they could keep circulating through the town at a rapid rate all night, spotting suspicious strangers arriving at late hours and being "on the job" if alarms were raised on their routes. When Mr. Dale related his ideas to the troubled "chief," the latter grasped it as the drowning man reaches for the proverbial straw. But one cloud was on the horizon. The Larchmont

police till did not contain sufficient small change to permit of the purchase of the necessary motorcycles. Mr. Dale promptly pushed away the cloud. He bought three Indians and presented them to the town.

With the exception of the unfortunates who did not arrange to have at least one burglary to show that they were of the Larchmont "select," everyone in Larchmont is now happy. There has not been a burglary in the place since the motorcycle patrol went into effect. Incidentally, the motorcycle police have evinced their appreciation by nabbing various and sundry automobile speed violators, and thus causing the Larchmont treasury to bulge.

Motor Skating Made Practical!



The "Mon's" Influence on Mother.

"Being a rider of little consequence, I wish to subscribe for your paper in order to keep myself posted on cycling doings," says a letter to the *Bicycling World*, from a correspondent, publication of whose name would only satisfy curiosity. "I rode the latter part of last season on the Salt Lake track and found that I liked the game all right. I used a nome de plume which I was forced to adopt so that my mother would not know. But as soon as I began to bring home the 'mon,' she never said a word, so this year I will ride under my right name and the one to which you can send the *Bicycling World*, viz ———."

13th, Unlucky Day for Two Americans.

The principal event at the Paris winter track on Sunday, 13th inst., was a match between Darragon and Nat Butler. It was run in two heats of 20 and 30 kilometers respectively, the Frenchman winning both, thus avoiding the necessity of a third race. Butler was obviously off his form, as he was lapped twice in the first heat, and beaten by 220 yards in the second. The happiness of the patriots was completed by the defeat of MacFarland by Jacquelin in two heats of one and two kilometers.

HEN'S INTENTIONS IN QUESTION

Judge Shows Injured Cyclist Necessity for Proving Her Motives—Case Promises to Become Famous.

If the influence of a decision just rendered by a Birmingham, England, court extends to America, it will be necessary for a cyclist injured by a hen or other domestic fowl mixing up with his front wheel to at once employ private detectives to go on the hen's trail and ascertain her habits and purposes in relation to people riding bicycles; for according to the British decision, her habits are things that will bear great weight in the judicial mind in its ponderous processes of arriving at the determination of a verdict as to whether the hen's owner should pay damages to the injured party.

The decision grew out of the action of a British cyclist who thoughtlessly brought suit against the owner of a hen that had caused him a severe accident, before he had obtained the proper evidence necessary to prove in court that the hen was maliciously disposed toward cyclists in general or himself in particular. He had no difficulty in establishing the facts of his injuries caused by the hen and that the defendant he was suing was the owner of the hen at the time of the mishap, but failed utterly in proving to the court's satisfaction the hen's misanthropic intent or that she had done or attempted similar acts of violence before.

The pitiful weakness of the plaintiff's case was clearly enunciated by the learned Judge Bray, whose name is in happy accordance with his utterances. Judge Bray laid it down as a principle that "a man who kept an animal was liable for all damage as common experience went to show was in the nature of that animal to commit if suffered to be at large." This sounded like a verdict for the plaintiff, but the judge continued by pointing out that the plaintiff had no case at all "inasmuch as it had not been proved that this particular fowl was a ferocious bird which was in the habit of rushing at cyclists with designs on their downfall, its owner therefore not being liable for the damages which its behavior unquestionably caused."

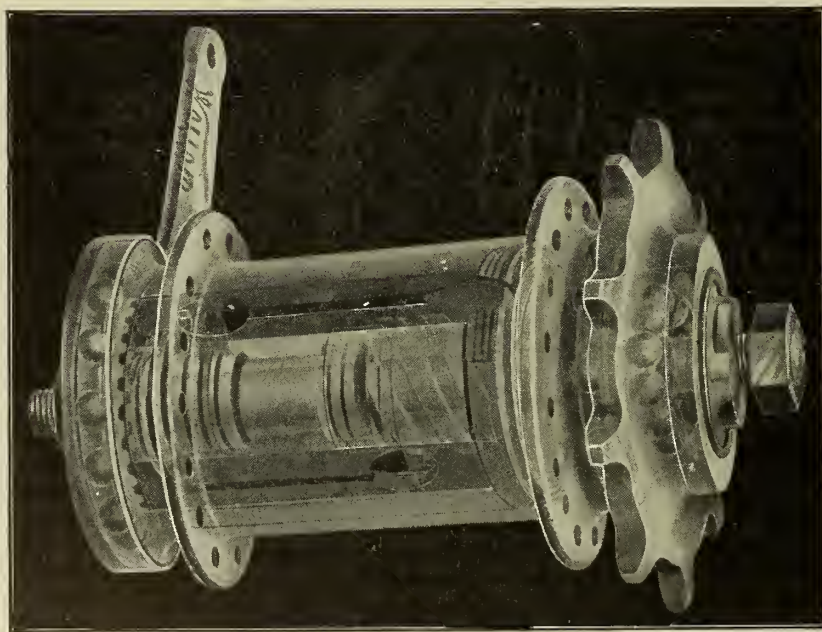
Evidently the importance of showing that the hen was in the habit of upsetting cyclists had escaped the plaintiff entirely in his prosecution of the case, but now, fortified with new evidence and backed by the Cyclists' Touring Club, he is going to carry the case up to a higher court. Meanwhile the defendant's attorneys will probably busy themselves with evidence to fortify their position that it was the hen's first offense, which Judge Bray has shown constitutes an entirely adequate defense.

If you failed to do so last year

Why Not Have Your Bicycle Morrowized

for this season's use?

It is the time when your local dealer or repairman can give the most time and best attention to the work.



The Morrowized bicycle is a more pleasurable
bicycle and a safer one.

If you are not fully informed drop us a line.

ECLIPSE MACHINE CO.,

Elmira, N. Y.

HIS CRANK CYCLING COMPANION

Jones Was Respectful to Peculiarities That Annoyed Third Member of Party—His Deference Explained.

There had been a light fall of snow in the night—not more than a dusting of white on the frozen roads—and the morning sun came out crisp and bright, making the conditions ideal for a winter run, says A. Chesby in the *Scottish Cyclist*. Should I go on the motor bicycle? No—back tire was flat; tricar—takes too long to get ready. There is always the faithful old crock—I would go on that. I pumped up the tires, stuck on an oil lamp, and went around to call for Jones. Jones was almost ready to start, and had arranged to call on a Mr. Carlish. I was told, en route to the domicile of the gentleman named, that he was a most enthusiastic cyclist—kept a diary of every mile he rode, how long each ride took, how much he spent on each ride, how he cleaned his machine and deflated the tires slightly on his return from every ride, and kept a pair of old stockings wherewith to muffle the handle bars when the machine was not in use. "Absolutely thorough in everything," said Jones, admiringly.

Carlsh turned out to be a man of about thirty, thin, very precise in his dress, and led off by reminding Jones that he was seven minutes late, for which I claimed to be responsible. Carlsh informed us that he had mapped out a capital little run to a little place called Hoadley, an out-of-the-way hamlet of three houses and a public house. The latter had been closed when I visited it in the summer, but Carlsh said it was now open, and that he knew the landlord. I made an inquiry as to the proposed route, but Jones told me that Carlsh had mapped the whole thing out, and we could leave it to him. We did. He took us through the most wretched little lanes, through "short cuts," up hills that I don't object to, when in riding form, but which are rather trying in winter after a course of motor cycling. All the while Carlsh paddled along. His machine was a two-speeder, with about 55-inch low gear, which he used most of the time, and looked quite hurt when I tried rushing one or two little pimples. I tried to induce Jones to do a bit of rushing, but he was very half-hearted, and when we were a short distance ahead told me that Carlsh—he said "Mister Carlsh"—didn't like to be left behind; it annoyed him. However, we came at last to a decent little bit of downgrade, and I persuaded Jones to move in front and take us along a bit.

We were just swinging along nicely when we came to a big patch of deep ruts opposite a gate, where some building oper-

ations were going on, and as we struck them a car came around the corner. The lane was narrow, so Jones nipped up on the footpath. I followed, but struck a deep rut, which swung me about a bit. Matters were further complicated by a large branch of a tree lying across the path, and in order to avoid mixing this with my front wheel I slowed up, and was immediately "cannoned" by Carlsh. The impact was not heavy, but it bowled me over, and I came down on one knee rather smartly. I got up, feeling annoyed. "Hang it all, man," I said, "you had plenty of time to slow up!" "Had you raised your hand," said Carlsh, as he narrowly inspected his front wheel and forks, "I should have at once slowed;



NEW YORK BRANCH: 214-216 WEST 47TH ST.

but you gave no sign, and the collision was due to you letting your machine get out of control." I could have explained that the combination of deep ruts, a motor car, and a fallen tree was one which called for a little consideration, but as no damage had been done to the machines I mounted again, and we proceeded. Carlsh's dignity seemed hurt, so I asked him what he thought of the Stanley Show.

"I did not visit the cycle show this year. I treat my machine with the care and attention due a costly piece of mechanism, and I anticipate that this bicycle, which was new last year, will serve me for several more seasons," was the reply.

"You don't go in for a new machine every year?"

"I do not," said Carlsh. "I deprecate such extravagance, and have almost invariably found men who adopt that course to be of the class that rides a machine for months without cleaning it, allowing the accumulation of mud to remain upon and destroy the enamel."

Here I interrupted him to confess that I

never cleaned my machine more than twice in a year, as I found that if the tires were pumped hard the mud would drop off when the machine was ridden over rough setts. He regarded me with a look of horror. Later I said to Jones, "Rather peculiar chap, your friend. He might easily have avoided knocking me over, but wouldn't slow down because I didn't sign to him." "That's one of his peculiarities," said Jones; "but he knows the rule of the road, and won't give way when he's in the right." I inwardly expressed a wish that I might meet him some day when I am driving a car. However, we progressed towards Hoadley at a steady twelve an hour, twisting about through lanes, over paths across, getting off now and again for gates, and crossing farms which had every appearance of being private, but I was assured by Carlsh that there was a public right-of-way in each case, and I firmly believe that he had actually found out that such legal rights did exist before mapping out the route.

Just as I was beginning to hope that Carlsh had lost himself, and would be under the humiliation of confessing as much, we skirted a farmyard, and found ourselves on Hoadley Common, and about half a mile from the hamlet itself. We had taken over three hours to reach a place not more than sixteen miles from our starting place. I felt like lunch, and so said. The new landlord of the inn was something of a curiosity in his way. He was a bachelor, and supplemented the small trade he did by catching moths and butterflies and similar wild fowl, and mounting the same as lantern slides for scientific purposes—truly as queer a specimen of a Boniface as one is likely to meet. There was nothing to eat but biscuits. Carlsh ordered brandy and milk round, and we sat in a comfortable little taproom to drink it.

Now I usually don't ride on brandy and milk, but one must ride on something, so I took my share. I would even have had a second dose, but was informed that there was no more milk in the house. I walked out to pump up my front tire, which I fancied was running down, and found the valve was slightly unscrewed, probably due to the fall. The pump on my machine was not a particularly good one, so, noticing that Carlsh had a long Bluemel on his frame, I asked for the loan of it. He somewhat grudgingly signified his willingness to take it off the machine if no other were available, but said he did not use pump clips, as they scratched the enamel, and always secured his pump with black tape—which I found he had used, and had also very neatly solutioned the ends down. Rather than disturb his cherished fastenings, I used my own defective inflator. Then we started for home, by a route also planned and devised by Carlsh. I regretted that I had called on Jones, and thus got into the company of his friend. Had I gone for my ride alone, I should have done

a brisk thirteen or fourteen miles out, had a drink at some decently hospitable house, and returned to the lunch which was even now awaiting me.

I began to wonder why Jones put up with Carlish's overbearing ways, and to speculate how long, if Carlish were murdered on the spot over which we were riding, it would be before his body were found. We toiled through more lanes, here and there greasy, where the bright sun had effected a partial thaw, plugging along against a wind that got colder and stronger every minute, finally coming out on the Downs, a stretch of some seven miles or so, with never a licensed house and few of any sort. It commenced to snow—gusty icy showers that stung the face and got down one's collar. Jones did most of the pacing—he used to be a decent chap, did Jones, and still retains some of his old ways; Carlish paddled along on his low gear; I was cold, hungry, and tired, and my knee began to be painful.

According to Carlish's schedule we were to stop at the Angel, a rather stylishly got up place that had never attracted me. My knee got more painful and began to swell a bit. The plugging along with one leg seemed to take all the go out of me, and the crawling we had done coming out seemed to have made me stiffer than a fast hundred miles would have done. At last I asked Carlish, "When the d—I are we coming to that Angel?" We did get

there at last, and Carlish wanted to order brandy and cold milk again, but I rebelled. I asked for tea and a new-laid egg, and mixed them up and put brandy in the mixture while some toast was being prepared. Dinner time was long past, and they could offer us nothing better than bread and cheese. I tackled my toast and was punishing the cheese, which I passed to Carlish. "I don't take cheese," he said; "it disagrees with me in every form. I cannot even enjoy other food when cheese is on the table. It is my idiosyncrasy," "Your what?" I asked. "My idiosyncrasy," he repeated. "Dear me! How very awkward. Have you only one?" Carlish looked at me with a stony eye, and Jones kicked my foot under the table, so I said no more. Jones used to be a decent fellow.

We had now about seven miles more to cover, and when we made another start I felt much better, although my bruised knee was still sore. I felt quite friendly to Carlish when he said he felt hungry, and had arranged for lunch to be ready on his return home, which was timed for three o'clock. Jones was going to lunch with him. I couldn't understand Jones falling in with such unusual hours for meals. However, feeling quite chirpy now, I endeavored to draw Carlish out, and talked of tires and other things.

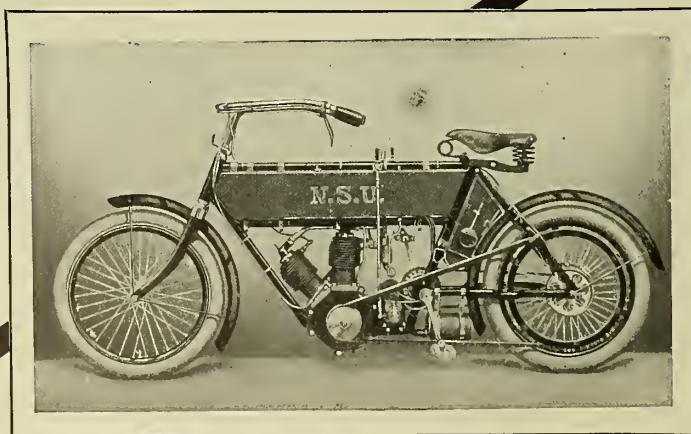
It was now snowing pretty heavily, and was thawing slightly also, but there was only another three miles to go, when bang!

—Carlish's tire went, cut from "ear to ear" by a broken bottle. Even at this juncture Carlish endeavored to bring me a sense of the folly of my ways as he undid his wallet, and asked me what I should have done in the same predicament, as I had no tool bag. A hurried investigation of Carlish's and Jones's bags showed that there was not enough canvas to repair the cover. I proposed that Jones should ride on with me, obtain what was needed at my house, and return with them, while Carlish either repaired the inner tube or walked. There was no better proposal going, so off we went, leaving Carlish wheeling his machine with the back wheel off the ground to keep the fast-gathering slush from entering. Arrived home I took a small roll of canvas and a repair band out of my pocket, and handed them to Jones, who looked somewhat surprised.

"Why, you bally idiot, why couldn't you fork these things out before?" said Jones. "As it is we shall be late for lunch, and I wanted to have time to smarted up a bit. You see Carlish has invited me to spend the afternoon with him and his sister, and if you knew the trouble I've had to get an introduction to her—" I dragged out of another pocket a big tube of solution with a square foot of patching rubber, shoved it and a roll of tape into Jones's pocket, swung his machine around, and gave him a shove that would have been worthy of the starter of a record-breaker. I understood.

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slightest trouble with
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Over 10,000

HIGH SPEED BELT PHENOMENA

Experiments Showing Some Queer Things
That Occur From Centrifugal Force
—Strain on Motorcycle Belts.

It is a curious and apparently anomalous fact that a belt connecting two pulleys which are revolving at a high rate of speed, although in close contact with the rotating

the article in question. "Consequently centrifugal action creates a tendency for the belt to fly out radially, and also to stretch. The accompanying drawings illustrate some interesting experiments which were made by Dr. Stroud at the Yorkshire College, and described in Goodman's 'Mechanics Applied to Engineering.'

"It will be seen that in Fig. 2 the belt is quite tight, whilst in Fig. 1 it is stretched

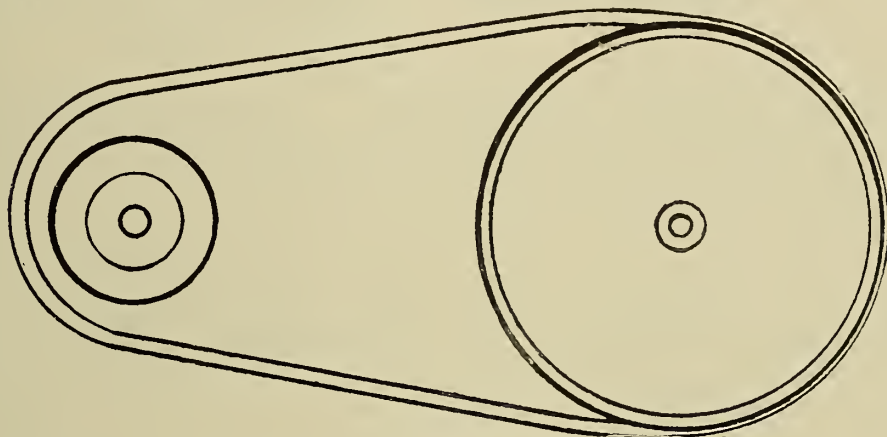


FIGURE 1

surfaces, will be thrown outward by the action of centrifugal force until there is actually no absolute contact, a thin layer of highly compressed air instead being interposed between the two surfaces. Even in the case of V-belts such as are used in driving motorcycles, this is true and frequently, despite the tightening of the idler, a measurable gap between the front or smaller pulley and the belt exists. This, however, does not necessarily affect the tractive power of the belt, as it has been proved in the case of heavy belt transmissions that the air-layer on the surface of the pulley acts as a cushion for the belt and in reality does not seriously diminish its pulling ability.

A very good illustration of the way in which this effect occurs, is shown in the accompanying pictures, reproduced from a recent article in the British Motorcycle, in which by means of a demonstrating model, an exaggerated illustration of the natural effect is secured.

Fig. 2 shows an india rubber belt running around two pulleys of approximately the diameters used on motorcycles. The small pulley was rotated at a very high speed, and the belt again photographed. The print was as shown in Fig. 1. The belt stretched to such an extent that it left the smaller pulley, to the extent shown. It will be seen that the belt has also risen in the larger pulley, and in Fig. 1 is visible above the rim of the larger pulley, whilst it is completely sunken in the trough of that pulley in Fig. 2.

"The driving belt of a motorcycle can be taken to be a body rotating about two centers, one of these centers being the center of the crankshaft, and the other the center of the driving road wheel," says

to a considerable extent. This stretching shows that the belt is subjected to a new stress, apart from the driving stress, and it has been calculated that if a belt runs at a very high speed, such as a mile per minute, the stress on the belt is more than doubled by the centrifugal action. The

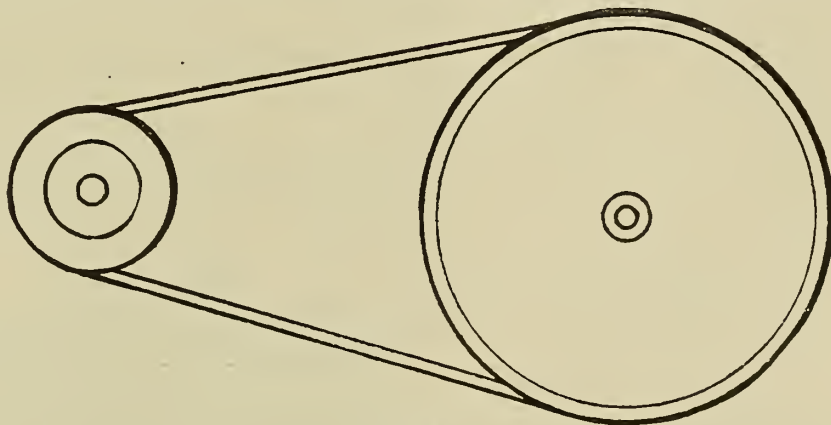


FIGURE 2

belt is designed to withstand a certain pull exerted by the engine. It is generally calculated to withstand the maximum pull which the engine can exert, with a margin or factor for safety.

"If the belt is run at high speeds up to fifty or sixty miles per hour, the figure to be allowed for is double that of the engine pull, with a consequent factor of safety. This shows the importance of having very strong belts and belt-fasteners on racing machines.

"Taking the figures of a recent record, in which eighty miles an hour was accomplished, the belt speed, with the diameter of pulleys and size of wheel used, works out at fifty-eight miles an hour.

"From the remarks made above, the

stresses on the belt would be well imagined. On touring machines the stress due to centrifugal action is nothing like so great, but it has to be considered, and it is a wonder that belts do not give way more at big speeds when these facts are considered."

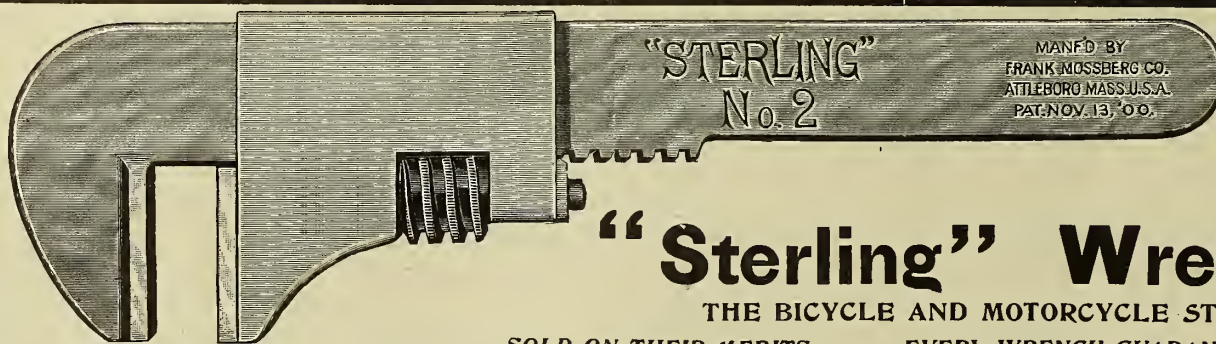
Beefsteak Doings in a "Dungeon."

The New York Motorcycle Club held its annual beefsteak dinner on Saturday evening last, 26th inst. It took place in an underground establishment styled the "Dungeon," which is fitted up in keeping with its term. But for the presence of "To hell with the law" Gerbereux the occasion would have proved as pleasant as the other club affairs.

Although he never rode a motorcycle in his life, he has a "grievance" and when representatives of a disgruntled manufacturer offered him the "presidency" of a "national association of motorcyclists" which had been "formed" merely by printing a title on a letterhead, Gerbereux jumped at it. Last year, the beefsteak went to his head and his "to hell with the law" utterance resulted. On Saturday night, a bosom friend called on him for a few remarks and he promptly trotted out his grievance. He delivered a twenty-minute harangue, the substance of which might have been stated in 20 seconds, thus: "Me and me friends are so 'sore' on the F. A. M. for suspending us that we are likely to blow up and bust

in our desire to get even." He pleased himself immensely.

But he will have reason to remember the stinging rebuke that followed. Former Captain Bendix delivered it. Bendix does not always resort to the language of diplomacy in giving voice to his opinions and he did not do so on this occasion. He arose and said that while not particularly interested in any organization except the New York Motorcycle Club he considered it a "damned outrage" and mighty poor taste for any man to spoil an evening of pleasure by venting his personal spites or differences or by making a stump speech about something foreign to the dinner. The incident cast a demper over the whole evening.



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to whom you sell the bicycle.

A PERSONS SADDLE

will help you do so.

It will also help you make the sale in the
first place. If you have never tried it, you
can have no true idea of the extent of the
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Frame Tubes

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HANDLE BAR TUBING

MANUFACTURERS OF HIGH GRADE MATERIAL ONLY

SEAT POSTS

Fork Sides

Rear Forks

Rear Stays

THE STANDARD WELDING CO., CLEVELAND

Sidewalk Cycling Costly in Lakewood.

Ninety days in jail may be the punishment of any motorcyclist or bicyclist caught riding upon the sidewalks within the confines of the township of Lakewood, N. J., according to the term of an ordinance passed by the township committee last week; punishment therefor may be either imprisonment for a term not exceeding ninety days or a fine not exceeding \$100, according to the fancy of the justice of the peace before whom the case is tried. The ordinance, which was passed last week, goes into effect immediately. It reads as follows.

"Be it ordained by the Township Committee of the Township of Lakewood that the riding of bicycles and motorcycles upon the sidewalks of the said Township of Lakewood is hereby prohibited.

"Be it further ordained that any person or persons who shall violate the provisions of section one of this ordinance by riding bicycles or motorcycles upon the sidewalks of the said Township of Lakewood, shall upon conviction thereof be subject to the following penalty, namely, the justice of the peace before whom the proceedings shall be instituted and conviction be had, shall determine whether the penalty shall be by fine or imprisonment, and if he determines it shall be by fine the same shall not exceed the sum of one hundred dollars, and if he determines it shall be by imprisonment, the term thereof shall not exceed ninety days in the Township lockup and until the costs be paid."

Three Tourists Start, One Survives.

J. C. Wright who, since July 16th last, has been on the road, reached his final destination, Los Angeles, Cal., on Jan. 21, where he will spend the remainder of the winter. Wright and two companions, F. W. Johnson and his brother, C. L. Wright, left their home town, Springfield, Mo., on July 16th last, and the trio traveled leisurely through Kansas into Colorado, visiting Denver, Cripple Creek, Canon City and Grand Junction, with an interesting side trip up Pike's Peak. From Colorado they went south into New Mexico, and at Santa Fe Johnson became homesick and started back to dear old Missouri. From that time on the Wright encountered miserable weather conditions, meeting several heavy snow storms and having many repair jobs on the desert. At Phoenix, Ariz., C. L. Wright's bicycle was stolen but J. C. Stuck the trip out alone, while his brother proceeded to Los Angeles by rail. The remaining rider had many experiences which make good stories now, but were rather trying at the time. He fought snows that were extraordinary for the season of the year; at Flagstaff a full two feet made very bad going. Despite the hardships Wright enjoyed the tour so much that he expects to make the homeward journey a wheel in the spring.

Boston to Have Rink Racing.

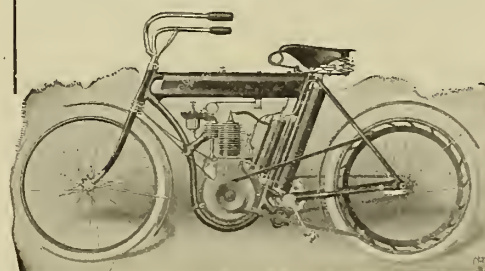
Boston has contracted its usual mid-winter bicycle racing fever, which is taking the form of flat floor races in skating rinks and Hugh MacLean and James F. Moran are booked to meet to-night (Saturday) in two races. There is a whisper that a six-day race on the so many hour a day plan will be held the week beginning February 18th. There was talk of holding the same kind of a race last winter, but the project did not get beyond the air castle stage.

Edgecombes Elect Their Leaders.

At the annual election of the Edgecombe Wheelmen, New York, last week, the following were chosen for the 1907 term: President, John Bellew; vice-president, Emil Koster; treasurer, B. Glemba; financial secretary, H. Vanden Dries; corresponding secretary, O. C. Brandes; captain, H. Kest; first lieutenant, Frank Lane; second lieutenant, Al. Anderson; third lieutenant, D. Saponara; color bearers, Henry Johnson and Fred Wurster; bugler, Emil Koster.

Prospects Promote a Roller Race.

In connection with their dance on Feb. 21st, in Turn Verein Hall, 670 East 158th street, New York, the Prospect Wheelmen will hold a mile home trainer race, open to all amateurs. The entry fee, 50 cents, includes preliminary use of the home trainers in the club's quarters, 811 East 144th street. Thomas Owen, at that address, is receiving the entries. A gold watch and nine other prizes are on the list.

ARMAC BALANCE

Draw a Line from hub to hub of the wheels of any ARMAC Motorcycle and you will immediately see that the weight of motor is placed close to the ground, below the center of gravity, giving that easy steering, perfectly balanced machine.

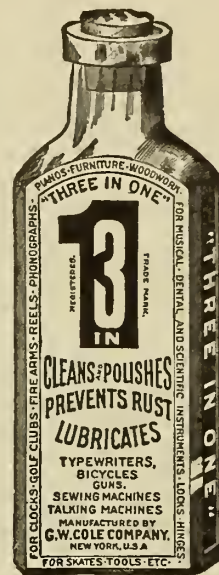
Motor Is Not a part of frame construction, therefore rider feels absolutely no vibration and owing to position of rider and motor being hung in loop, you can turn sharp or slippery corners with a feeling of perfect safety and speed that you would not dare attempt on a machine where motor is placed in frame construction above the center of gravity, making it top heavy and hard to steer or balance.

There Is Merit in every line of ARMAC construction. Let our agent convince you or borrow your friend's ARMAC for a few moments and convince yourself. Send for catalog "C."

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on the market or one year—

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Which will sell best?

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Which is more likely to please the customer and make repeat sales?

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Ask your jobber for prices and at least a trial dozen.

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3 in One friends are best friends

If You are Interested in Motorcycles,

"Motorcycles
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How to Manage Them"

is the very book you need.

Every page teaches a lesson. Every illustration "speaks a piece."

Price, 50 Cents.

THE BICYCLING WORLD CO.,
154 Nassau St., New York,

The Week's Patents.

839,634. Vehicle-Tire. Edwin O. Pease, Bangor, Me. Filed Feb. 20, 1906. Serial No. 302,110.

Claim.—1. In a vehicle-tire, a concaved rim having specific projections on its edges and springs spanning said rim and having their ends secured to its edges, substantially as described.

839,798. Process of Producing Gas for Power Purposes. Frederick W. Barker, Nyack, and Thomas L. White, New York, N. Y., assignors of one-tenth to John F. Coffin, New York, N. Y. Filed Sept. 12, 1906. Serial No. 334,254.

Claim.—1. The process of producing a gas for power purposes consisting in bringing dilute alcohol into contact with calcium carbide and by suction simultaneously drawing air in contact with the carbide.

839,849. Sprocket-Chain. George Horst, Columbus, Ohio, assignor to Joseph A. Jeffery, Columbus, Ohio. Filed Jan. 4, 1902. Serial No. 88,374.

Claim.—1. A chain-link having a cross-bar with an axial aperture and a recess in its periphery, two side bars having apertures arranged to register with the recess in said cross-bar and a wearing-plate seated in said recess and having its ends extending into the apertures in the side-bars.

839,979. Driving-Gear for Cycles. Wilhelm Boos, Erlangen, Germany. Filed Apr. 21, 1905. Serial No. 256,746.

Claim.—A driving gear for cycles, comprising in combination, a shaft mounted in a frame, a sprocket-wheel and a driving-wheel rigidly mounted at the ends thereof, a pin projecting laterally from each of said wheels, the two pins being located at an angle of one hundred and eighty degrees to each other, an axis mounted in the frame, double-armed pedal-drivers mounted thereon, and a yoke riveted to the frame and linked to the tail ends of each of the pedal-levers, the other arms of the levers having open guide-slots adapted to receive the crank-pins of said wheels, in such manner that when one lever engages one pin, the other lever releases the other pin, substantially as described.

840,204. Carburetter. Gustave E. Franquist, New York, N. Y. Filed Aug. 11, 1905. Serial No. 273,719.

Claim.—1. In a float-feed carburetter, a chamber or casing having a cavity therein, a guiding-sleeve adjustably arranged within the walls of said cavity, a plurality of ports or openings in said guiding-sleeve, a valve having a plurality of ports arranged to successively register with said first-named ports when the valve is opened, a diaphragm having a tubular extension, a supply pipe or nozzle within said extension, and means for moving the valve into seating relation upon said diaphragm.

840,209. Tire. George E. Heyl-Dia, Stretton, near Warrington, England. Filed Sept. 29, 1905. Serial No. 280,565.

Claim.—1. A tire comprising a fabric having a plurality of layers of rubber thereon, each layer differing in hardness from the others, and studs extending from the outer surface through the rubber portion of the tire out to the tread-surface thereon.

840,345. Automatic Lubricator. Max Klemm, Bielefeld, Germany. Filed Mar. 5, 1906. Serial No. 304,297.

Claim.—An improved lubricating apparatus comprising in combination a receptacle

for the lubricant, a pipe leading therefrom, a valve in said pipe adapted to permanently close or open the same, a second valve in said pipe adapted to be intermittently operated, a lever provided with a link adjustably connected with the last-mentioned valve, a toothed wheel adapted to engage said lever to intermittently operate the same, said lever being provided with an elongated engaging portion adapted to be successively engaged by said teeth, a spring connected with said lever and with a stationary part, and means for adjusting said lever to vary the movement of said last-mentioned valve.

840,357. Bicycle-Support. Edwin G. May, Aston Manor, England. Filed Apr. 16, 1906. Serial No. 311,979.

Claim.—1. A bicycle-support comprising an arm pivoted to one of the bifurcations of the steering-wheel fork, and a rod movably secured to the terminal of said bifurcation and engaging at its outer end with the pivoted arm when in its supporting position.

840,805. Ball-Bearing. August Riebeck, Berlin, Germany. Filed April 18, 1906. Serial No. 312,378.

Claim.—1. In a ball-bearing, a cage having two rings arranged edgewise and having ball-openings between them, and means for yieldingly opposing relative movement of such rings in an axial direction.

841,148. Acetylene-Gas Generator. Albert H. Herbert, Holyoke, Mass. Filed June 24, 1905. Serial No. 266,780.

Claim.—1. The combination, in an acetylene-gas generator, of a generator-casing proper having a gas-chamber therein, a separate independent casing of like area arranged to rest upon and be secured to the first-mentioned casing, said supplementary casing having a water-reservoir in the upper portion and a cooling chamber in the lower portion thereof, the end walls of said cooling-chamber being cut away to give free access to the interior thereof, and the side walls of said cooling-chamber being substantially continuous excepting for air-passage openings therein, water-feed conduits from said reservoir and a two-way valve casing and valve in the cooling chamber, said water-feed conduits communicating with the generator-chamber, a gas-pipe passing through the cooling chamber to the reservoir, and waste-pipe connections in the cooling-chamber, said valve controlling both the water-feed and the waste, substantially as and for the purpose set forth.

841,155. Tire-Protector. Orin Kelly, Oreton, Ohio. Filed Nov. 18, 1905. Serial No. 288,009.

Claim.—1. In a vehicle-wheel the combination with a rubber tire, of a metallic shield engaging the tread-surface of the tire with its opposite longitudinal edges embracing approximately three-fourths of the exterior surface of said tire and curved outwardly to produce laterally-extending flanges, the adjacent ends of the shield being provided with shoulders defining reduced perforated extensions which overlap and bear against said shoulders, and fastening devices passing through the perforations in the overlapping ends of the shield.

841,359. Cross-Head Pin for Explosion-Engines. Edward R. Hewitt, New York City, N. Y. Filed Feb. 23, 1906. Serial No. 302,325.

Claim.—1. A pitman connection for explosion-engines, comprising a hollow pin adapted to be received within the piston and having longitudinal slots or recesses at

each end, an expanding-wedge having a seat with a conical surface, and a nut having a correspondingly-coned surface at the end opposite said head.

841,434. Motor-Cycle. Edward L. Pequegnat, Frank A. Pequegnat and Charles W. Milan, Riverside, Cal. Filed Mar. 12, 1906. Serial No. 305,672.

Claim.—1. The combination with a bicycle, of an impulse-motor carried thereby, a drive-shaft connected to the rear-wheel of the bicycle, a clutch member carried by the power-shaft of the motor, another clutch element slidable upon the drive-shaft in frictional relation with the first-mentioned clutch member, and means mounted upon the frame of the bicycle and associated with the slidable clutch member to move the same with respect to the other clutch member.

841,450. Cushioned Handle-Bar for Velocipedes. Meyer Rosen, Bloomington, Ill. Filed Jan. 15, 1906. Serial No. 296,170.

Claim.—1. A cushioned handle-bar comprising in combination, an L-shaped member mounted in the upper end of the stem of the fork of a velocipede and having a forwardly-projecting horizontal arm, a journal in the free end of said arm, a handle-bar journaled therein, a threaded sleeve on the other arm of said L-shaped member, a collar adjustably mounted thereon, a compression-spring resting on said collar and a U-shaped member rigidly secured to said handle-bar at the free ends of its arms at each side of said journal, said spring being adapted to normally hold said U-shaped member at the upper limit of its movement.

841,473. Traction Device for Vehicle-Wheels. Horace S. Weaver, Butler, Pa. Filed Jan. 17, 1906. Serial No. 296,479.

Claim.—1. A vehicle-wheel provided about the thread thereof with a series of traction devices, each having connecting members provided at one end with a hook and at the other end with an eye for co-operation with the hook of a companion member.

841,553. Number-Transparency for Vehicles. Daniel Lynch, Chicago, Ill., assignor of one-half to Frederick H. Herhold, Chicago, Ill. Filed Nov. 3, 1905. Serial No. 285,788.

Claim.—1. A number-indicator for vehicles comprising a suitable rectangular metal box having one longitudinal side cut away; a door hinged at one side of and tightly closing said opening, said door comprising a metallic main frame having the inner edges of its outer surface countersunk, a substantially L-shaped retaining-frame removably secured to the front of said main frame and turned back over the edges of the same, and a number-transparency secured in the seat formed by the countersunk portion of said main frame and the vertical portion of said retaining-frame; and means extending from the outside of said box for illuminating said transparency, substantially as described.

841,566. Sparking Plug for Explosion-Engines. Israel C. Orswell, Amesbury, Mass., assignor to Orswell Igniter Company, Boston, Mass., a corporation of Maine. Filed Jan. 25, 1906. Serial No. 297,791.

Claim.—1. A spark-plug carrying sparking electrodes and having a non-magnetic metallic casing containing an induction-coil, to the secondary of which said electrodes are connected, said casing having its walls cut away at separated intervals lengthwise the axis of the coil.

THE BICYCLING WORLD and MOTORCYCLE REVIEW

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No. 20

COASTER COMBINE IN CONTROL

Houk Tells How Syndicate Dominates the British Market—Variable Speed is Popular in England.

G. W. Houk, once a figure in the American cycle trade but who for the past ten years, has been a resident of London, after paying one of his periodical visits to this country sailed for home on Saturday last. Houk made a name for himself over there because of his success in pushing the Morrow coaster brake. During one year his business in that product reached \$250,000. Latterly he handled a device of the sort under his own name and gave the syndicate, which brought alleged basic patents to bear, such a good fight that he was granted a license; this he recently disposed of to good advantage.

The syndicate, Houk said while here, is a strong one and absolutely dominates the situation. It has forced every American coaster brake out of the English market and made their sale impossible. The members of the combination are, however, suspicious of each other and as a result the situation is not always unruffled. The conditions imposed require that a specified price be adhered to; failure to do so is punishable by a penalty of \$1.25 for each coaster hub that may be sold under the figures scheduled. Houk said he was not aware that the penalties ever had been collected but he was not so sure that it was because of religious adherence to the syndicate prices. Before he disposed of his license, Houk said he once tried to test the strength of the compact by offering a bicycle manufacturer a considerable parcel of coaster hubs at a figure well below the combination's tariff. But despite the temptation the manufacturer refused to buy. Instead he wanted Houk to set a price on his (Houk's) license, the inference being, of course, that once in posses-

sion of it, he was in position to collect enough of the \$1.25 forfeit money to make it worth while.

Houk said the coaster brake, in contradistinction to the free wheel, has made undoubted progress in Great Britain. It is, however, employed chiefly on the high priced bicycles, those listing around \$50; the free wheel is almost universal on the machines selling for \$35 or less. The variable gears are, however, coming strong and Houk thinks it is not unlikely that they ultimately will be the standard equipment on the higher priced bicycles. Fixed gears are practically unknown.

Houk confirmed the report of the robust health of the British industry. Asked to what he attributed it, he said it was due not alone to the excellence of the roads but to the comparative absence of trolleys. To those who are not affluent, the bicycle affords the only available means of getting about. The great rise in exports he thought was due very, very largely to the demands from the British possessions. Was the demand due to loyalty? Houk did not think so.

"It may be of some influence but, you know, the British makers are now producing mighty good bicycles that sell for \$25 or \$30, which I think constitute the bulk of the exports," he remarked.

Prospect Gets Peugeot Agency.

The Prospect Motor Mfg. Co., Brooklyn, N. Y., which in a modest way had been producing the Simplex motor bicycle, has ceased the manufacture of that machine and henceforth will devote its energies to Peugeot motorcycles. J. J. McGuchin, the head of the company, made a quiet trip to France last month and obtained the Peugeot agency for the United States. The machines will be imported in parts which will be assembled here and will be marketed as the Simplex-Peugeot. The line comprises $2\frac{3}{4}$ and $3\frac{1}{2}$ horsepower single cylinders, $3\frac{1}{2}$ and 5 horsepower double, and an 85-pounder of $1\frac{3}{4}$ horsepower.

CHANGES IN THE CONSOLIDATED

Appointment of Sales Manager at Yale Factory to Succeed Buffum—Latter Becomes a New Yorker.

A. B. Coffman has been appointed sales manager of the Consolidated Mfg. Co., Toledo, Ohio, and hereafter will fill the chair at the Yale factory previously occupied by Edward Buffum. For Buffum, one of the good old stand-bys of the cycle trade, finally has "gone into" automobiles. The offer that induced him to come to New York and assume the management of the Empire State Motor Co., was too tempting to be resisted despite his love for bicycles and motorcycles. He long had been in the Yale service first as Eastern traveler and later as sales manager. He is one of those cordial men who is so free from "bounce" that he is certain to accumulate friends wherever he may go.

Coffman, his successor, is the same type of man—an earnest but light-hearted and thoroughly likable Southerner who covered the South and West in the Yale interests but who, because of his participation in several national motorcycle endurance contests, is not wholly a stranger in the East. His elevation to the vacancy caused by Buffum's resignation seems almost a matter of course.

McLaughlin Takes Up Motorcycles.

Because of the splendid behavior of the N. S. U. which he used during last season, J. F. McLaughlin, 148 East Forty-ninth street, New York, has gone into the motorcycle business, having secured the N. S. U. agency for Greater New York. Already he has sold six machines and contracted for space at the Sportsman Show in Madison Square Garden, March 2-9, at which he will exhibit both the single and double cylinder machines, each with magneto ignition, and also the N. S. U. two-speed gear.

STARTING TROUBLES EXPLAINED

How a Sticking Piston May Cause Magneto Failure—Proper Advance of Spark—Use of Pedals.

Editor of the Bicycling World:

Many readers of the Bicycling World have doubtless derived considerable help in understanding the simplicity of the magneto system through studying Mr. Ovington's exhaustive paper, as published on Jan. 12th and it seems deplorable that the good effect of such communications should be upset by the "Foreign Expert" who "loses his magnets" on Jan 19th.

Mr. Ovington's later paper of Jan. 26th, in diagnosing H. E. D'S troubles, takes up the subject most thoroughly, but not in the splendid simplicity of his former article.

The old-time bicycle rider, from whose ranks the motorcyclist naturally graduates, is inclined to view these electrical features with some "impression of mystery," whereas the cycle of the motor itself is more easily understood and its operation quickly perceived. The simplicity of the magneto itself can be readily seen by referring to that form of magneto used in the old-style telephone practice where a ringing current is generated by the hand-crank revolving an armature between the poles of the horseshoe magnets and a magneto for motorcycle ignition does not materially differ in construction and is identical in mechanical movement.

The difference between the magneto and battery system is a difference of generation only and the only function of the magneto is to furnish the igniting spark in the combustion chamber and at the proper moment.

Let the would-be magnetoist therefore get this thoroughly engraved on his "grey matter" and trouble in starting will no longer cloud the aspect with which he should regard the magneto question.

Slowness and inability to start easily are more often attributed to causes which are entirely foreign to the magneto, although the latter is more than likely to be blamed. In order to understand the mechanical operation involved in the generation of this electrical current, it is only necessary to follow the "endless chain" connecting the magneto shaft with the rear wheel of the motorcycle.

The pedal gear, under ordinary circumstances, when pedalled, will start the motorcycle forward. The rear wheel, through gear, belt or chain of the respective system of transmission, will cause the motor shaft to revolve and the motor shaft being directly connected through gear or chain to magneto must cause the magneto shaft to turn, which armature revolution between the poles of the horseshoe magnets, is but a modification of the various

forms used in nearly all electrical current generators and if this were all that is involved, the motorcycle would at once pick up its work and proceed to business. The immediate revolution of the magneto armature, attached to its shaft, is therefore the fundamental starting point of the entire mechanism for current generation and if this does not take place, there can be no "juice."

No motor will start unless the motor shaft and flywheels will revolve and the piston move freely in cylinder. This piston movement takes place, if the rear wheel of the bicycle is turned, whether by pushing the machine forward or by pedalling with exhaust lifted; unless the transmission be inoperative by reason of slipping belt, or too loose a friction device, where gear shaft or chain drive is used, if it does not move, the piston will be fast in cylinder. Ease in starting is therefore considerably, although not entirely dependant upon ability to move piston freely in cylinder. The larger bore foreign motors require a squirt or two of kerosene to reach cylinder walls, before the piston moves freely, but most of the chain driven American motors of the Thor type can be "flushed" by tickling the carburetter.

Having got the motor to turn, it is obvious that the magneto shaft will revolve and current be at once generated, when magneto is in proper tune.

Dropping the exhaust lifter secures compression and if gas has reached combustion chamber, the explosion is due, and we now want the hottest possible spark at the psychological moment, when it will have the best effect.

If the gas is not in combustion chamber and does not consist of a proper mixture by reason of inaction or defective regulation of carburetter float, spray, or air-inlet; or is not passing through inlet valve, no satisfactory result can be obtained, but assuming that these conditions are somewhere near right; the start now depends entirely upon the question of timing the spark.

In practice, it has been found that the magneto system requires an advanced spark and in this respect, it is the reverse of the successful starting by battery ignition. Bearing these established facts in mind, it would seem highly probable that a proper start may be obtained by advancing the spark and practice will soon determine just where it should be placed, for the particular make of magneto and motorcycle which we are using.

The little tricks of starting are soon acquired by one who is interested and will study the conditions applicable to the machine.

The magneto, like the motorcycle and automobile, has come to stay and the convenient operation of the latter two machines is so dependent upon the former that proper refinement of the magneto is

sure to take place, with the demand for its adaption to such purposes.

As there is more than the magneto action concerned in the question of quick and easy starting it may be well to consider the resulting effects upon the machine in general, when endeavoring to start too promptly.

Compare the exertion involved, in quickly starting a push pedal bicycle, in which the rider does all the work and the consequent strain upon pedals, cranks, chain and frame and then think of the results, which are likely to come from the efforts of the powerful little engine, which we are trying to drive, at such a fast initial speed and the damage involved, to say nothing of the discomfort to rider in the shocks transmitted to him.

The new motorcyclist is too prone to forget that he is not using a steam engine working entirely by the expansible properties of steam, which is exerted on both ends of the piston and gives two steady impulses for each revolution.

The single cylinder engine of the motorcycle has to go through four movements, involving but one power stroke in two complete revolutions and this power, is not so thoroughly expansive as that of the steam engine, but more in the nature of the gun-powder explosion forcing a ball out of a cannon, with a sudden stop before it reaches the muzzle—and this shock terminating on the crank consequently brings up against the shaft bearings and through them to every part of the bicycle.

These shocks are, however, not so perceptible after the start, but that is the time when the most damage is done by the indiscriminate rider whose physique may be such that he does not really feel any ill effects from the repeated thrusts of the little engine in its efforts to respond to his thoughtless action.

A quick start involves rapid overcoming of the inertia which seriously disturbs the composure of the quiet machine. A fast run alongside and a jump ou, or a quick pedalling movement increases the rider's heart action and it is not to be recommended even to the youth with all his strength, etc.

A belt driven machine can probably be started quickly with less damage, than the shaft, gear or chain motor, by reason of the greater relief through the slipping of the belt, but the strain on the frame is even greater, on account of the direct pull, which is partly divided on the counter-shaft of chain machines and to a great extent eliminated by the slip of the friction clutch device.

No motorcycle with coaster-brake is ridden without pedals and pedalling chain and these should be used in starting and pedalling should be kept up until the motor runs away from the pedals, the rider slowly increasing the advance of spark as the engine speed increases.

There is doubtless much pleasure to be gotten by the owner of a fine automobile but there is more sport in riding a motorcycle that some writer has said "that the difference is as great as between driving and riding a fine horse."

As the greater range of travel on a bicycle exceeded the endurance of a horse, so does the motorcycle overcome the necessity for the exertion required on a bicycle when one has the time and inclination to go great distances.

The modern motorcycle will go and go all day and every day if the owner will only give it the careful attention that he would expect on a fine horse, for it needs grooming (cleaning), feeding (with gasoline and lubricating oil), and shoeing (with rubber tires), and does not require the doctor as often as the average horse needs the vet.

B. K. N.

B. & S. Form Canadian Company.

The Billings & Spencer Co., the well-known drop forging concern of Hartford, Conn., have organized the Canadian Billings & Spencer, Ltd., capital \$200,000, and have completed arrangements for the erection of a big plant at Welland, Ont., eight miles from Niagara Falls; it is expected that the plant will be completed and turning out B. & S. wrenches and other products early this fall. The establishment of the Canadian branch, of which Fred C. Billings himself is president, means a more aggressive bid for the export trade of the world. The existence of preferential duties to other British colonies afford advantages that are not to be gainsaid.

To Correct a Lamp Trouble.

Sometimes a defective oil-lamp which refuses to burn regularly may be set right by drilling a small hole in the filling cap thus admitting air to the font to take the place of the oil absorbed by the wick. In order to exclude dirt and also to prevent undue evaporation when not in use, it is well to drill the vent through the sides of the threads just under the flange of the cap, so that when it is screwed firmly into place, the hole will be closed, but by loosening it a couple of turns, air may be admitted without at the same time letting in any great amount of dirt.

He Wanted a Catalog Badly.

Rather amusing to epistolary experts must be the following letter which, it is claimed, was received by a prominent firm of British bicycle manufacturers from a dealer in the colonies: "Dear Blank Cycles & Co., Ltd., England: Please kindly send your catalogues of bicycles and its price list to me and another various catalogue and good patterns of clothing per yd., and your Almanack and Calandar for 1907, and I beg you, in the name of God, let me see your letter in order to get them in time at Post Office here. Yours truly, ———,"

ABOUT REMOVING THE ENAMEL

Potash the Most Available Material for the Purpose—Care Necessary to Obtain the Best Results.

While in theory there is nothing particularly difficult in connection with the process of re-enameling an old bicycle frame, the fact remains that comparatively few repairmen succeed in turning out a thoroughly presentable job, even when given a fairly smooth frame to work upon, and plenty of time for the seasoning and baking of the new coats. As in all things, there is a reason for this, and far from having to do either with the nature of the new pigments applied, or the methods of application and seasoning, it is likely that the real explanation rests with the preparatory process, that is to say, with the difficulty of cleaning the frame before the new enamel is applied, and more particularly in removing all traces of the old enamel, so that a perfectly smooth and virgin surface is left to work upon. Nor is any neglect of this all-essential precaution of necessity chargeable to carelessness in most cases. Rather it is a fact that few repairmen understand the pains and perseverance required in removing old enamel and thoroughly cleaning the metal of every vestige of grease and dirt.

As to the precise methods to be applied in accomplishing this, authorities differ considerably, but perhaps a majority of them agree that a strong solution of potash in hot water is the best possible primary application. This, if allowed to remain on the enamel for some little time, softens it enough so that it may be removed by scraping with the back of an old case knife, care being taken not to scratch the metal and to renew the solution wherever a hard spot in the enamel is encountered. After this the parts should be gone over lightly with emery cloth, beginning with a medium grade and finishing off with crocus cloth or bath brick and not stopping until a clean and smooth, though not brightly polished surface is obtained. Some authorities recommend the use of sand-paper instead of emery cloth, and others do not advise the use of the potash solution as a starter, claiming that it is better simply to scrape and sandpaper the surface until it is worked down clean and smooth. After removing as much of the old surface as may be with the abrasive, a second period of soaking in potash followed by a thorough cleaning in alcohol, which will remove all traces of grease may be given, and the frame is then ready for the new coating.

Prior to the application of the new enamel, it is suggested by at least one enameller of experience, that it is a good plan to go over the frame with a very light coating of warm boiled oil, which is allowed to

remain undisturbed for at least thirty-six hours. This tends to form a good elastic basis for the new pigment and will prevent cracking, even when a poor grade of stock is used, as it is claimed. When this is done, the same precautions in excluding dust and dirt as is taken when the actual enamelling is under way, should be taken, and even greater care if anything, as otherwise the smoothness of the final surface may be entirely lost. In any event, all dust and dirt should be excluded from the room from the time when the first coat is laid on until the job is completed, and care should be taken to see that the temperature is maintained at an even and not too low point.

Before applying, it is well to set the can of enamel in a pan of tepid water, the temperature of which is kept uniform by frequent renewals, until the coat is all on. The brush strokes should be as even as possible, the grains all parallel and the coating not too thick, and the workman should take pains not to cover his old tracks unless it is absolutely necessary. The same sort of care taken with the first coat, as would be employed in running on a final coat of varnish on carriage work, is certain, if followed by a period of thorough drying, to result in a surface of enamel which will hardly require any dressing at all before the second layer is applied. Nevertheless, it should be rubbed down a little, just enough, in fact, to remove all brush marks, whether visible or not, and to catch up any specks of dust which may have fallen during the drying process. Whiting and oil, applied with a piece of felt, forms the best rubbing material, and for the sake of reducing time and labor, its use may be precluded with a light going over of the surface with curled hair. Its use should be very light, however, as otherwise a good many scratches will be developed.

As to the number of coats, a good deal depends on the quality of the enamel used, as well as on the amount of time at hand, and the condition of the frame upon which the work is being done. If applied in the ideal way four coats will be required, the first two to give the required body and color to the surface, the third to set up the lustre which, because of the partial transparency of the top coat, must be very even and barely touched with the rubbing pad, and the fourth laid on as thin as possible, under ideal conditions of cleanliness temperature and time for setting, and afterward left undisturbed until thoroughly hardened. It is all in the trade, and all based on an admixture of skill and patience in awaiting the proper time before applying the paint in any coat. But as has been said, more depends upon securing a smooth basis to begin upon, a clean surface which will catch and hold every grain of the pigment, and working conditions which will ensure the even flow of the liquid, than upon the degree of pains taken in polishing the next to the last coat, or the price paid for the enamel itself.

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NEW YORK, FEBRUARY 9, 1907.

"Enclosed please find \$2 for the renewal of my subscription to the Bicycling World. It is the best invested \$2 I ever put out."—S. A. Harding, Concord, N. H.

On the Keeping of Records.

Whatever relative importance in the construction and use of the motorcycle pure theory may play, the fact remains that machines are designed and built, not to exploit theories, but for the most ordinary service of the average man, put to whatever use he may see fit, and treated merely as instruments of his pleasure. Hence the development and application of all theories, is merely a systematic and regulated attempt to foresee what the nature of those uses will be, and what will be the nature of the difficulties likely to be encountered. In this way too, the development of the testing department is but an effort to simulate the regular work of the machine in constant use, and whatever conclusions are arrived at as a result of the test, are the bases of improvements not for the sake of broader theories which they help to formulate, but for the sake of the better service which their results permit. Yet at their best, these results, whether obtained by reasoning or by experiment, are but

conclusions drawn from counterfeit conditions. Invariably, the real test by the average man under average conditions, reveals something not quite true in the conclusions of theory and expert practice. Every machine once perfected and put upon the road must go through a process of subsequent development before it is really up to the standards set by its maker.

Hence it is perfectly true, that were the experience which comes to the average user the property of the designer frequently his course would be far different from its actual direction, because he has erred somewhere in his theorizing. It may be that his ideals have been too high for practical realization, or that some little catch exists somewhere in the mechanism which is not serious to him, but which to one whose mind is not concentrated wholly on the running of the machine, one who, in other words is making it nothing more than a vehicle to transport him from place to place, may prove a serious drawback to its practical use. Or again, it may be that he has not calculated sufficiently on the severity of usage given a machine by one who has no practical conception of the enormous strains to which the parts are subjected under severe road conditions, so that some one part proves inadequate for the task assigned to it.

With the user himself, as well as the maker, something is lost through the inability to apply the experiences of others to the conditions which arise every day. What the average man has to find out for himself as to the average costs of operation, what factors of extraordinary importance he has to work out in the school of experience, someone else already has discovered, someone else already has worked out, and were the results available, he might avoid some of his mistakes, and better still, might know when his expenses were running away with him, simply because they would fall above the average figure.

Unfortunately, the almost infinitesimal amount of bookkeeping involved in keeping watch of the expenditures for maintenance, and the general performance of the machine, seems to repel the average rider from jotting down the performance of his machine. If he has a run of unusually hard luck, he is not slow to complain of it, nor is he slow in discovering the reason and avoiding further difficulty of the same sort, if possible. But as for checking up

daily the number of miles covered, the nature of the roads, and recording any little incidents which may have occurred to make or mar the pleasure and success of the trip, that is something which takes on too much the aspect of work to be to his liking. It may be simply and readily done, however, and the amounts of fuel and lubricant purchased and used are easily recorded, and from these facts at stated intervals, the most interesting and valuable data may be evolved by the simplest process of addition and division. As already pointed out, such records carefully preserved, are of the utmost value alike to the maker and to the user. The former always is interested to know what parts give out and under what conditions, and the latter always wants to know how far a gallon of fuel will carry the other fellow, and how frequently he has to change tires. Some few men do maintain a careful record of their performances, but it not infrequently happens that such as do, are loth to part with them, least of all to give them out to the public because a sense of false modesty seems to forbid it. The eager interest with which such results are studied, however, simply goes to prove their value to the industry, and to show how much of real live benefit might be derived were the practice more general. The record of Mr. E. W. Carritt, printed in another column, is an excellent example.

What with such laws as are pending in Pennsylvania and Massachusetts it is a good thing for the riders and the trade that they have a Federation of American Motorcyclists looking out for their interests. But it is well for each of them to bear in mind that they should lend a hand in assisting themselves. The motorcyclist of those States who does not bestir himself sufficiently to "drop a few lines" to his Senator and representative, should forever hold his peace if no relief is obtained. The fact that in Pennsylvania it is proposed to exact a fee of \$5 from dealers and in Massachusetts, a similar fee of \$25—the same fees as are proposed for imposing, glass-fronted garages—ought to cause quick and earnest action on the part of the retail trade.

"Enclosed is amount of my renewal. I don't see how any cyclist can get along without the Bicycling World."—J. F. Roy, Alexandria, Tenn.

20 MONTHS OF MOTORCYCLING

Carritt's Careful Records of Mileage, Gasolene, Lubricants, Batteries and Repairs—Data is Valuable.

Despite the amount of interest which attaches to the records of the riders' experiences with his machine, comparatively few of them keep close watch of their performances and record them in any form which is capable of subsequent use. It is perhaps unfortunate that this is so, as the information which might be obtained from a large number of such experiences, would be at once interesting and highly useful to the manufacturer. One of the few riders of authority and experience who has kept track of his riding from day to day and from year to year is E. W. Carritt, the silver-haired president of the Brooklyn Motorcycle Club. The result is a distinct contribution to the fund of motorcycle information.

During the twenty months elapsing between May 6, 1905, and December 31, 1906, Mr. Carritt rode his motorcycle an average of 411 miles per month, making a total distance of 8,232 miles in all. The distance, it is also interesting to note, was covered in 121 rides, averaging 68 miles each. *During the entire period a close record was kept, not simply of the amounts of supplies consumed, and the costs of repairs, as well as the mileage covered, but also of the cause and effects leading up to every incident of an unusual nature, the results of such accidents as befell him, together with the consequences in every case. All this forms a wealth of information not simply revealing the leadings of one man's "luck," good and bad, but mostly good, but also forming a fair basis of estimate as to what should be the costs and successes of other men.

The riding was done entirely on a 1905 Indian motorcycle, which has been gone over thoroughly at the factory, once in February, 1906, with which exception, it has been kept pretty much outside the shop. Only one motor trouble was experienced during the entire period, according to Mr. Carritt's record, and that happened on November 26, 1905—the date is important, since it proves the accuracy of the record in other respects—when the head of the exhaust valve parted company with the stem, likely due to overheating. Of more startling and unpleasant experiences, the record shows several, none of which, however, resulted at all seriously for either of the parties to the surprise. On one occasion the machine and rider passed over a 40-pound dog, on another a small boy on a bicycle, suddenly turned into the road while riding in the same direction and was run into. On still another memorable occasion, another motorcyclist, coming into

the road from a cross road at right angles, plunged into the machine with menacing force. In this, as in the other events, however, the peculiarly good fortune of the rider saved him from harm.

At the same time, this machine won 4th prize in the economy test held by the Brooklyn Motorcycle Club on September 17, 1905, carrying the heaviest rider, whose weight scales nearly up to the 200 pound mark, the 190 miles with an average consumption of 120 miles to the gallon.

Six (6) sets of batteries used in making 7649 miles in 110 rides, during period of 18

Summary:

1905.	No. Rides.	Miles.	Aver.
May	9	588	65
June	7	692	99
July	11	960	87
August	7	560	80
September	6	527	88
October	10	703	70
November	7	550	78
December	5	196	39
	62	4776	

1906.	No. Rides.	Miles.	Aver.
January	2	207	103
February
March	2	133	67
April	7	455	65
May	5	352	70
June	6	243	40
July	5	325	65
August	4	360	90
September	9	447	38
October	6	216	36
November	9	633	70
December	4	85	21
	121	8232	

	Miles.	Rides.	Miles.	Aver.
1st	1000	12	1007	84
2nd	1000	13	1063	82
3rd	1000	11	1001	91
4th	1000	15	988	66
5th	1000	14	1027	73
6th	1000	15	987	66
7th	1000	18	1018	57
8th	1000	18	993	56
Start 9th	1000	5	148	30
		121	8232	

Rides.	Miles.	Miles.	Aver.
20.....	25 or less.	362	18
23.....	26 to 50	861	37
30.....	51 to 75	1928	64
20.....	76 to 100	1717	86
21.....	101 to 125	2236	107
3.....	126 to 150	405	135
2.....	151 to 175	320	160
1.....	176 to 200	196	196
1.....	201 or over.	207	207
121		8232	

Battery Record

		Miles.	Rides.	Aver.	Period.
First battery.....	May 5 to July 1, 1905...	1280	16	80	2 mos.
Second battery.....	July 2 to Aug. 15, 1905...	1223	14	87	1½ mos.
Third battery.....	Aug. 16 to Oct. 30, 1905...	1397	19	73	2½ mos.
Fourth battery.....	Oct. 31 to March 1, 1906..	1083	15	72	4 mos.
Fifth battery.....	March 2 to July 14, 1906..	1237	22	56	4½ mos.
Sixth battery.....	July 15 to Nov. 5, 1906...	1429	24	59	3½ mos.
†Seventh battery.....	Nov. 6 to Dec. 31, 1906...	583	11	53	2 mos.
		<hr/>	<hr/>		20 mos.
‡And still running		8232	121		

†And still running.

months. An average of 1275 miles per set—during an average period of 3 months—

and each ride averaging 70 miles and done at an average speed of 20 miles per hour.

The sixth battery ran 1429 miles with an average ride of 59 miles, lasting a period of 3½ months, averaging 7 days use per month, and was the only one completely run down, showing less than an ampere at the conclusion of the last ride. The others were replaced when showing less than 5 amperes and some had probably a good 1000 miles or more in them when discarded.

The third spark plug is now in use. The third control spring blade is now in use. The second contact screw is now in use.

Gasolene.

May 5 to Dec. 31, 1905.	56½ gals.	\$12.34
Jan. 1 to Dec 31, 1906.	54 gals.	12.61
	110½ gals.	\$24.95

8232 miles average 74½ miles to gallon at an average cost of 22½c. per gallon.

This includes every ounce of gasolene purchased or stolen between May 5, 1905, and Dec. 31, 1906, and covers evaporation between rides and any withdrawals for cleaning purposes, in repairing tire tubes, cleaning chains or flushing out crank case, as well as emptying tank several times in storage rooms, etc.

The seventh gallon of lubricating oil is now in process of consumption.

Twenty-three punctures were encountered; in which glass, tacks (single and double-pointed), 2 pins and one needle, wire, one sliver from trolley rail and various styles of nails played their respective parts, including a 2½-inch wire, which a small boy had set up in the road, nicely enclosed in a wet clay cone. (The boy is likely to remember the occasion even longer than the rider).

There is no doubting Mr. Carritt's enthusiasm, both for the motorcycle and its older partner, the pedal mount, to which he still is a staunch adherent. In regard to his use of the latter, he says: "The good old 'push' bicycle, although somewhat deserted during the latter part of 1905, has been kept moving during the part year particularly for evening rides and for short distance spins. But no centuries have been ridden, and the mileage made on it has been small compared with former years. The hills and head winds of the bicycle days are only a memory when mounted on a well-tuned motorcycle which will skim along over good roads at such a gait that the rider will have to watch the cyclo-

meter and regret the stops necessary for proper lubrication."

MIDNIGHT RACERS SUSPENDED

Two of Them Disqualified for One Year—
Efforts to Suppress News of Acci-
dents Prove Unavailing.

For competing in the outlawed midnight New Year race to Tarrytown, promoted by the Associated Cycling Clubs of New York, Albert Kreuder, Alex Feidler, George Wood and C. Rogers have been suspended by Roland Douglas, Chairman of the Federation of American Motorcyclists Competition Committee. As second offenders, Kreuder and Fiedler have been shelved for one year and the other two for three months each, and as the F. A. M. is allied with the American Automobile Association, the National Cycling Association and the Amateur Athletic Union, all events sanctioned by those bodies also are closed to the quartette.

Owing to the disgraceful occurrences in the 1906 race, when three competitors were injured and a horse frightened and a wagon overturned, which led to a midnight row in which pistols were drawn, great efforts have been made to keep quiet the news of the occurrences attending the last race, which had been banned by the F. A. M., but despite the efforts it has leaked out that one of the four competitors ran into and knocked down a pedestrian and that one of the other three skidded in the slush and broke his machine and was able to finish only because Fiedler came up and surrendered his mount to him. Fiedler, who is a youth employed by the agent for the machine the unfortunate rode, is said to have acted under the instructions of his employer, who started him to meet exactly such a contingency.

The charge of carrying dead clubs on the roll which was brought against the Associated Cycling Clubs has not been met because of the inability of the organization to attract a quorum for the transaction of business of any sort.

Pennsylvania Law is Introduced.

The new automobile bill, against which the Federation of American Motorcyclists is contending, was introduced into the Pennsylvania legislature on Monday last. Motorcycles are specifically included in its provisions which would re-enact the present annual fee of \$3 imposed on riders and a new one of \$5 to be collected from dealers. Among other things it restricts the use of motor vehicles to persons of more than 18 years of age. The speed limit in the open country is extended to 30 miles per hour, which is the chief end which the State automobile organization, which favors the measure, has sought. To the automobilist, everything else has been of secondary importance. Dr. S. D. Bashore, the F. A. M. State Representative,

who has been doing such good work in endeavor to lighten the motorcyclist's burden, has received assurances of support from a number of the legislators. He has applied for a hearing and the bill will not pass in its present form without some vigorous opposition that will be brought to bear. The fact that the automobilists have enlisted the sympathy of Commissioner of Highways Hunter, who does not incline very kindly to the motorcyclists' cause, is the most discomforting feature of the situation, Mr. Hunter being in charge of the registration bureau.

Shortmarker Wins the Austral.

The final of the Austral meeting was run on December 15, 1906, at Melbourne, Australia, and had as the feature the final heat of the classic Austral Wheel Race—the blue ribbon event of the Antipodes—of two miles. A large crowd turned out and good finishes seemed to be the order of the night. Summaries: First Semi-final Austral Wheel Race—1st. P. Helir, 130 yards; P. J. Obrian, 120 yards, 2d; E. Lisberg, 160 yards, 3d; C. S. Neil, 4th. Time 3 minutes, 59½ seconds. Second semi-final, F. W. Henry, 220 yards; F. Smith, 220 yards, 2d; E. Thorn, 220 yards, 3d; N. L. Craig, 220 yards, 4th. Time 4 minutes, 3 seconds. Third semi-final; H. Thomas, 20 yards, won; R. W. Morgan, 40 yards, 2d; C. A. Best, 60 yards, 3d; T. L. Millward, 160 yards, 4th. Time 4 minutes, 59½ seconds. Final—H. Thomas, 20 yards, won; P. Helir, 130 yards, 2d; W. Henry, 220 yards, 3d; E. Lisberg, 160 yards, 4th. Time 3 minutes, 59¼ seconds.

The front men made the pace from the start and at the bell Henry led by about twenty yards but Thomas came strong down the stretch and won by a yard; two yards was the difference between second and third.

Glass Throwing a State Offense.

It will shortly become a State offense to throw glass or broken bottles on any highway in Indiana. A bill providing for a maximum fine of \$50 upon conviction has been introduced in the legislature of that State, and it is not thought there will be any opposition to the measure becoming a law.

Causes of Rim Cutting.

It is a good thing to remember that rim cutting never can occur when a tire is fully inflated. Also, it is well to reflect upon the fact that to leave the weight of a machine standing on a deflated tire is fully half as injurious as riding it for the same length of time in the same condition.

Passing of an Early Champion.

Dave Stanton, a champion in the days of the old "ordinary," and a frequent opponent of Jack Keen, died a fortnight ago in London. He was 65 years of age.

MASSACHUSETTS SQUEEZES AGAIN

Proposed Amendments to Automobile Law
Reaches Into Pockets of Dealers and
Non-Resident Motorcyclists.

Because the big motor cars are claimed to have damaged the public highways, the motorcyclists of Massachusetts and more particularly non-residents who may visit the State and tarry longer than two days, are likely to be compelled to pay for the damage they did not do and are not apt to do.

The subject was discussed at the session of the last legislature, the upshot being that the committee of taxation was instructed to draft amendments to the automobile law that would pile more agony and greater burdens on the victims of that Russianlike measure. The committee is supposed to have performed its work well, at any rate, it has reported the proposed amendments to the legislature now in session and there is every prospect that they will be enacted.

The resident motorcyclist already is so overburdened—he pays \$4 per year—that not even the Massachusetts committee-men's conscience permitted them to add to it. Accordingly he will continue to pay \$2 for the privilege of having a registered number attached to his machine and \$2 more for the license that permits him to ride it. The taxation committee evidently considers that motorcycles are akin to express wagons, brewery trucks, etc., as they are bracketed with those little vehicles and subjected to the same fees.

The Massachusetts legislature conscience, however, was not troubled by thoughts of the inequality of manufacturers or dealers as their annual fee was jumped from \$10 to \$25 without discrimination.

The non-resident motorcyclist will be squeezed by the reduction of the period in which he may remain within the generous Bay State without paying for it. Under the existing law the registration of his own State will hold good for 15 days in Massachusetts; if the proposed amendments are enacted he must "give up" \$4, if he tarries longer than two days.

Of course the automobilist is hit hardest. They are to be "squeezed" on a sliding scale—from \$5 registration, plus the \$2 license, for a small car, to \$15 plus the \$2 for a large car. The non-resident automobilist with a big vehicle who may remain in the State three days will therefore be taxed \$17 for the privilege.

The Federation of American Motorcyclists has lost no time in bringing pressure to bear, not merely to reduce the proposed \$25 dealers fee but to have motorcycles wholly exempted from the bill.

The full text of the precious amendments is as follows:

Be it enacted, etc., as follows:

Section 1. Chapter four hundred and seventy-three of the acts of the year nineteen hundred and three is hereby amended by striking out section one and inserting in place thereof the following:

"Section 1. All automobiles and motorcycles, except ambulances, fire engines and road rollers, shall be registered by the owner or person in control thereof in accordance with the provisions of this act. Application for such registration may be made by mail or otherwise, to the Massachusetts Highway Commission, or any agent thereof designated for this purpose, upon blanks prepared under its authority. The application shall, in addition to such other particulars as may be required by said commission, contain a statement of the name, place of residence and address of the applicant, with a brief description of the automobile or motorcycle, including the name of the maker, the number, if any, affixed by the maker, the number and size of cylinders, the character of the motor power, and the amount of such power stated in figures of horsepower; and with such application shall be deposited the following registration fees, namely: for each motor cycle, express wagon, truck, traction engine or other vehicle used solely for business purposes, two dollars; for each automobile other than those enumerated, a sum to be determined by said commission, taking into consideration the damage which such automobiles cause the State highways and the amount of revenue required to repair such damage; provided, however, that the fees required for registration of automobiles other than those of the first enumerated class shall not be less in any year than five nor more than fifteen dollars. The said commission or its duly authorized agent shall then register, in a book to be kept for the purpose, the automobile or motorcycle described in the application, giving to such automobile or motorcycle a distinguishing number or other mark, and shall thereupon issue to the applicant a certificate of registration. Said certificate shall contain the name, place of residence and address of the applicant and the registered number or mark, shall prescribe the manner in which said registered number or mark shall be inscribed or displayed upon the automobile or motorcycle, and shall be in such form and contain such further provisions as the commission may determine. A proper record of all applications and of all certificates issued shall be kept by the commission at its main office, and shall be open to the inspection of any person during reasonable business hours. The certificate of registration shall always be carried in some easily accessible place in the automobile or motorcycle described herein. Upon the transfer of ownership of any automobile or motorcycle, the fee for registration of which under this act is two dollars, its registration shall expire, and the person in whose name such vehicle is registered shall immediately return the certificate of registration to the commission, with a written notice containing the date of such transfer, and the name, residence and place of address of said owner. Upon the transfer of any automobile, the fee for registration of which under this act is at least five dollars, the transferee shall forthwith notify the commission in writing of the transfer, setting forth his name, residence and place of address, the registration number of said automobile, the date of such transfer and the name and address of the transferor. Upon the receipt of such

notice, accompanied by a fee of two dollars, he shall be entitled to a new registration of said automobile for the balance of the time covered by the former registration. If such purchaser does not within ten days from the date of the purchase give to said commission such notice, the registration of said automobile shall expire.

"The registration of every automobile, the fee for registering which under this section is at least five dollars, heretofore granted by said commission, shall expire upon the first day of July in the year nineteen hundred and seven, and the registration of such an automobile hereafter granted shall expire on the first day of March in the year following such registration. The said commission shall on or before the first day of February in each year determine the fees to be charged for such registrations, and shall give written notice thereof to each owner or person in control of an automobile as evidenced by the records of its office and subject to such registration fee. The Massachusetts Highway Commission, at its discretion, may assign to any person who so surrenders his registration certificate and who desires to register another automobile or motorcycle the distinguishing number or mark described in the surrendered certificate. No number or number plate other than those prescribed by the Massachusetts Highway Commission in its certificates of registration shall be displayed on any automobile or motorcycle operated in this Commonwealth; provided, however, that any automobile or motorcycle owned by a non-resident of this State who has complied with the laws relative to motor vehicles and the operation thereof of the State in which he resides may be operated by such owner on the roads and highways of this State for a period not exceeding two days without the license, certificate of registration and number plates furnished by the Massachusetts Highway Commission. Every such vehicle shall have displayed upon it the distinguishing number or mark of the State in which the owner thereof resides and none other until the vehicle is registered in accordance with the provisions of this section."

Section 2. Section two of said chapter is hereby amended by striking out the word "ten," in the last line, and inserting in place thereof the words:—twenty-five—so as to read as follows:

"Section 2. Every manufacturer of or dealer in automobiles or motorcycles may, instead of registering each automobile or motorcycle owned or controlled by him, make application upon a blank provided by said Commission for a general distinguishing number or mark, and said Commission may, if satisfied of the facts stated in said application, grant said applicant a certificate of registration containing the name, place of residence and address of the applicant, the general distinguishing number or mark assigned to him, and made in such form and containing such further provisions as said Commission may determine; and all automobiles and motorcycles owned or controlled by such manufacturer or dealer shall, until sold or let for hire or loaned for a period of more than five successive days, be regarded as registered under such general distinguishing number or mark. The fee for every such certificate of registration shall be twenty-five dollars."

Section 3. Section 12 of said chapter is hereby amended by striking out all after the word "commonwealth," in the third line thereof, and inserting in place thereof the following: And said fees together with all other fees received by said Commis-

sion under the laws of this Commonwealth relating to the use and operation of automobiles and motorcycles shall be credited by the Treasurer and Receiver General to a fund to be known as the "State highway maintenance fund." The said commission may expend in the maintenance and repair of the State highways, and for such expenses as may be necessary in carrying out the provisions of this act, such sums as the General Court may from time to time appropriate from said fund in addition to such other sums as may from time to time be appropriated from the general revenue of the Commonwealth for such purposes, so as to read as follows:

"Section 12. The fees received under the provisions of this act shall be paid monthly by the secretary of the Highway Commission into the treasury of the Commonwealth; and said fees together with all other fees received by said Commission under the laws of this Commonwealth relating to the use and operation of automobiles and motorcycles shall be credited by the Treasurer and Receiver General to a fund to be known as the 'State highway maintenance fund.' The said commission may expend in the maintenance and repair of the State highways, and for such expenses as may be necessary in carrying out the provisions of this act, such sums as the General Court may from time to time appropriate from said fund in addition to such other sums as may from time to time be appropriated from the general revenue of the Commonwealth for such purposes."

Section 4. This act shall take effect upon its passage.

Teams for Boston's Six-Day.

Without making any great fuss about it Hugh MacLean is going ahead with preparations for a "six-day" race to be held in the Park Square skating rink in Boston, during the week of Feb. 18-23. To avoid shocking the finer sensibilities of the bean-eaters, this "six-day" race will be on the so-many-hours-a-day plan, the men going two hours each evening. A special track will be constructed and should the venture pay MacLean expects to hold a month's racing indoors. Although the teams have not been announced, the following are semi-officially given: Joe Fogler-Walter A. Bardgett, Hugh MacLean-James F. Moran, Louis Mettling-P. F. Logan, J. B. Coffey-A. W. MacDonald, and others.

Expert's Winter Tip on Food.

A large bowl of oatmeal for breakfast and a boiled Bermuda onion weighing half a pound for supper, right through the winter, will strengthen the body and keep the inside and chest in fine condition. This advice is given by a racing man who, if he had saved all the money he has ever won, would now have enough to endow a home for broken down pedal pushers, which means that he has had several years of experience and should know whereof he speaks.

If one is a baroness, riding a bicycle on a British sidepath comes cheap. The other day Lady Beaumont was fined the large sum of twenty-five cents as the penalty of having committed this offense.

THE MOTORCYCLES AT THE CHICAGO SHOW

Insofar as motorcycles are concerned the Chicago Automobile Show, which closes tonight, provided a succession of surprises.

None of the more notable machines which were exhibited in New York in December were absent and they were augmented by the productions of four Western manufacturers, one of whom, Armac, proudly "stood pat" while of the others, two, Merkel and Manson, staged additions to their lines which incorporated some striking innovations, and the third, Harley-Davidson, had similarly tuned up their previous models. These developments were of the same character as marked several of the Eastern motorcycles that were uncovered at the New York show, i. e., more flexible carburetters and larger and more accessible fuel tanks and battery cases.

The new G & J double clincher tire and the new Goodyear mechanically fastened tire were in evidence, but in the matter of equipment, the Columbia separate generator, helmet shaped motorcycle headlight undoubtedly was the most unexpected novelty.

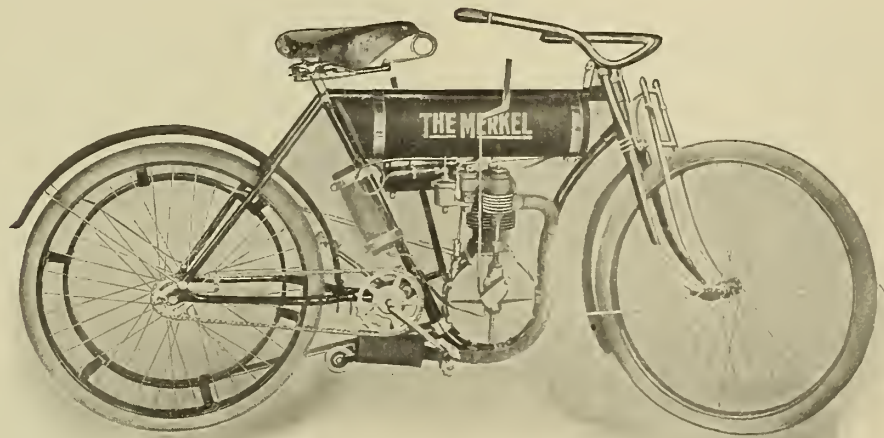
In all ten different brands of motorcycles were exhibited. The Hendee Mfg. Co.'s Indian, with its new roller gear motor drive, new carburetter, new inlet valve mechanism and other new features proved of as much interest in the West as it was in the East, and the same was true of the Reading Standard Cycle Mfg. Co.'s mechanically operated model and the R-S convertible drop-front tandem, each with the new R-S carburetter and lubricating system. The Consolidated Mfg. Co.'s Yale-California also was very much there and as the cordial Coffman, who "did the honors" at the Yale booth was on familiar ground, it goes without saying that the Yale held its own in point of interest. One four-cylinder F. N. occupied a niche in the Smith & Mabley automobile stand and did not escape notice, but, of course, with Smith & Mabley it is automobiles first, motorcycles a long, long way after and as Energetic Ovington was not present to exploit it, it is no reflection to say that the F. N. did not receive its full due. The M-M and the Thor motor and components were the other wares that had been shown in New York. The Armac, the Merkel, the Manson and the Harley-Davidson were the

four Western creations that had not been staged at any previous show. There is no sameness in these motorcycles. Each possesses individuality that is undoubted.

The Merkel Motor Co., Milwaukee, Wis., show two belt-driven models with spring frames, one of $2\frac{1}{4}$ horsepower, listing at \$155, and one of 3 horsepower, priced at \$185. Equipped with Sager spring fork the price is \$15 extra.

The 3 horsepower model, styled Form S, is entirely new and differs in every respect from the lower priced and better known machine and in it the makers have very

clearance of six inches. Transmission is by $1\frac{1}{2}$ -inch flat waterproof belt with a belt tightener operatable by a lever while a motion, if desired. This lever has a pawl at one end and moving it forward or backward allows it to engage in the next notch. The switch grip in the handle bar has been abandoned; the motor is stopped by throttling off the gas. The battery key screws into the top of the tank. By giving the key half a turn the batteries are disconnected. It is claimed that by stopping the motor through the use of the throttle there is no possible chance of the motor not stopping when desired, especially in emergen-



3 HORSEPOWER MERKEL.

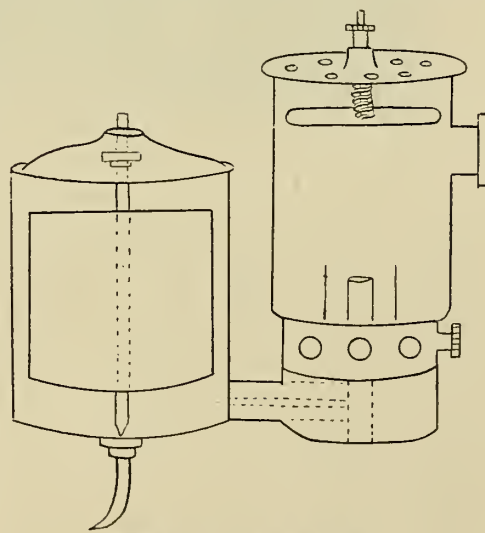
pleasingly combined beauty, strength and power. The frame is 22 inches high, has 54-inch wheel base, bottom bar and seat

cies, as sometimes a motor will continue to go after the spark is shut off, due to deposits of carbon in the cylinder hot enough to ignite a charge of gas.

This 3 horsepower Merkel motor is well designed and shows marked improvement, in workmanship and in finish. The cylinder and head are cast in one piece. The bore is $3\frac{1}{4}$ inches and the stroke 3 inches. The flywheels are of good size and the motor well balanced. There is a large exhaust valve and a generous exhaust pipe and outlet, which is good insurance against back pressure and overheating.

The Merkel also employs a new carburetter of original design, and arranged to compensate for the speed of the motor. It is of the float-feed type, but has separate float and gas chambers.

The upper end of the needle valve is a knurled nut, which, screwed up or down, regulates the height of gasolene in the stand pipe in the chamber. On the lower end of the gas chamber is placed an air shutter, which consists of a perforated ring. On the gas chamber there is a cor-



MERKEL CARBURETTER

mast in one continuous tube and motor set upright in loop and securely fastened to frame. The position is low, having a ground

respondingly perforated ring fitted with a small handle which passes a set screw. On finding the proper adjustments of air with which to start and run the motor, this ring is locked by means of set screw. The air passes up the stand pipe, which con-

The machine is equipped with 28 by 2¼ G & J tires.

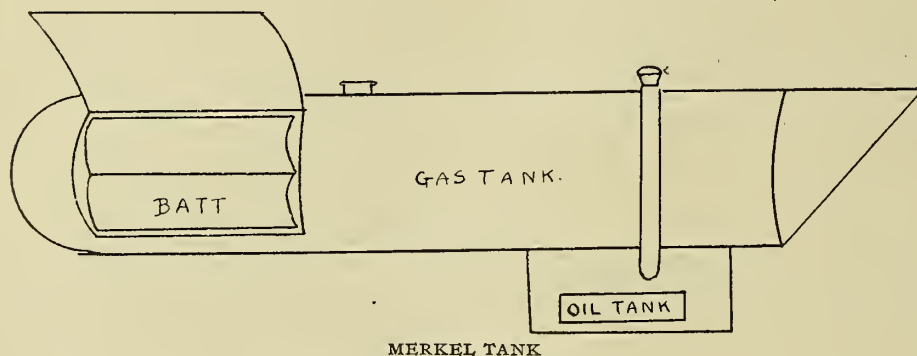
The Armac Motor Co., Chicago, staged five complete Armac belt-driven motorcycles, and one side car, one of which was

tion to be placed between each pair of batteries. In front of the seat mast is the coil running parallel with it at the battery case, which permits of the use of a very short wire, thus insuring good battery service. The spark, throttle and valve lift are controlled from the handle bar by the use of Bowden wire.

The Armac motor is rated at three horsepower, having a bore of 3 inches and a stroke of 3¼; the cylinder and head are cast in one piece, the valve chamber being placed in front and is so cast that there is air circulation between it and the cylinder which sets the valve stem and spring well out of the way of heat. The reduction and timing gears are placed outside of the motor base and are contained in a smaller oil-proof case, which permits of examination and repair without removing the motor or taking it apart.

The Breeze carburetter is employed as well as standard batteries. The machines are equipped with 2¼ or 2½-inch tires and the Sager spring fork is supplied as an "extra." It is priced at \$200.

Two models of the Harley-Davidson, made by the Harley-Davidson Motor Co.,



tains a flue, spraying the gasoline and mixes it with the incoming air. To compensate for the change effected by opening up the throttle they have arranged and placed in the top of the gas chamber a poppet valve. The top or cover of the gas chamber is perforated and as the motor is speeded through the action of the throttle, or the spark advance, this valve is opened by the suction of the piston, thus drawing in the extra air required for the conditions. The steam of this valve passes through the cover and has a regulating nut which governs the size of the extreme opening required to conform to the atmospheric and motor requirements.

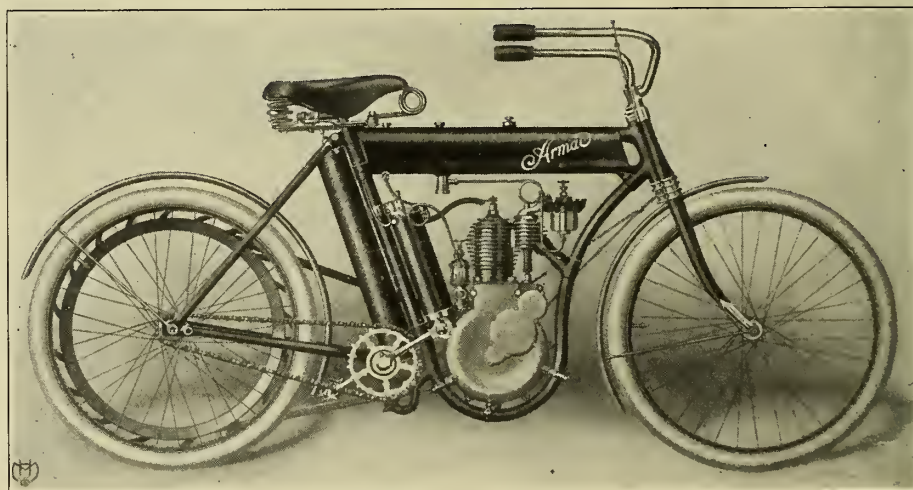
The battery box, oil and gasoline tank are combined and are the largest yet placed of any American motorcycle. Two cells are housed in the front end of the tank side by side with the third on top, all being strapped so that they cannot twist or turn and there is a good-sized door giving easy and free access to them. All the connections are properly insulated. The entire tank is cylindrical in shape and will hold two gallons of gasoline in addition to the batteries. Underneath, and securely fastened to the oil tank, which will hold two quarts of oil, there is a good sized tube passing up to the gasoline tank so that the oil is easily and quickly conducted thereto. The oil and gasoline capacity is sufficient for 200 miles. The system of oiling is by drip feed having a sight feed drip placed close to the motor.

The double stem handle bar is 28 inches wide and extends well back. In the rear of the frame there are no tanks, which permits of a low saddle position and the use of a luggage carrier.

The throttle is operated by a single grip control, a Bowden wire being employed.

The spark is advanced by the use of a lever on one side of the tank and within easy reach of the hand, which lever also lifts the exhaust valve. The muffler is so constructed that it silences well without back pressure.

hand polished, showing how the frame was put together. They are proud of the fact that their 1907 product incorporates comparatively few changes and those only in minor details. There is no denying that there is a lot of ingenuity in the Armac and that it is a machine that simply compels notice. The frame is 21 inches high,



3 HORSEPOWER ARMAC

has a 53-inch wheel base and is of loop design. The motor is hung in upright position. That striking Armac feature—a tank that forms the top bar, is, of course, retained. It is made by casting the head, head lugs and end of the tank in one piece, the rear tank end and seat mast lug being another single piece; the tube that forms the tank is then brazed to these ends. When completed the tanks are copper-plated inside and out.

The exhaust passes through the bottom tube around the base of the motor and then into a muffler which is located under the hanger bracket. The battery case is located at rear of seat mast and is a long fiber cylinder with the batteries standing on end. There is no wiring to be done, as the case is provided with a spring connec-

Milwaukee, Wis., are shown, one of three horsepower, the other of five horsepower with two-cylinder motor. The frame has a 51-inch wheel base and height of 20 inches. The bottom tube and seat mast is one continuous tube, the motor being carried in the loop. A lug is brazed to tube under motor forming a bed for the motor and lugs for the rear forks. The hanger bracket is placed on top of the rear forks in the rear of motor. The gasoline tank is hung from the top tube and holds 5½ quarts; on top of this is placed a flat tank extending full length of top bar, and which has a capacity of one quart of lubricating oil.

In the 3 horsepower motor, the cylinder and head are cast in one piece, the top of the head having no radiating fins whatever.

The bore is $3\frac{3}{8}$ inches and the stroke $3\frac{1}{2}$ inches. The motor base is very large; fly-wheel of large diameter and weighing 24 pounds being employed. The speed of the motor is 400 to 1600 revolutions per minute. The motor is hung low in the frame, clearing the ground by about six inches. In the Harley-Davidson the usual method of oiling is departed from, the oil being first conducted by means of a drop feed

mounting. A waterproof endless belt is employed. When desired the motor is equipped with a friction clutch, so that the motor may be started with a hand crank instead of by pedalling. This is so arranged that the operator can govern the clutch by use of a lever, and by its use also may be obtained the slowest possible speed.

The battery comprises standard dry cells placed behind the seat post. The muffler

cycle parcel carrier, one motorcycle side chair and two Manson motor bicycles, one equipped with Sager spring fork. Three of these machines were constructed entirely of Thor 1907 motor and components.

The Manson people have been making a specialty of parcel carriers and side car attachments for the past two years and have met with marked success in the West, particularly in Chicago. Their carrier is of the side-car type and has an ample body of pleasing design.

The fourth machine is a new one styled the Brown model, taking that designation from its designer, J. A. Brown, of Chicago, who originated the compensating sprocket for motor bicycles; on this Manson-Brown model his last and most improved compensating sprocket is employed.

This model attracted much attention as it is different in design from the regular Thor type. The motor is suspended verti-



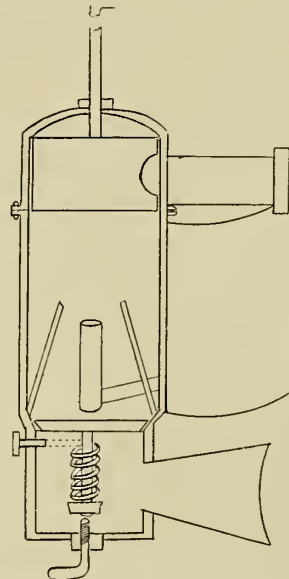
THE HARLEY-DAVIDSON

to the shaft and bearings and then to the motor base.

The carburetter, which is of the float feed type, is of exclusive design, and has separate float and mixing chambers. Contained in the float chamber is the regulation needle valve and metal float. The mixing chamber has an air port which is placed close to the motor, the throttle opening governing the quantity of air taken in. At the lower end of the mixing chamber and just above the air intake port is located a poppet valve. The suction of the intake stroke of piston lifts this valve for the admission of air, the quantity of which is governed by the position of the throttle. When the throttle is wide open, the valve opens to the extreme at which it is set. The tension of the poppet valve spring, governed by an adjusting screw located on the side of the air chamber, compensates for any variations in the intensity of the suction stroke. The regulation of the lift or seating of this valve can be governed by a screw in the bottom of the air chamber. Turning this screw up or down adjusts the normal air opening required to start the motor. By the use of these two screws, it is an easy matter to have the carburetter conform to the condition of the motor.

The throttle is governed by control in right grip of handle bar, while the electric contact is made through the left grip. On the right side of the machine there is a lever within easy reach of the hand which advances or retards the spark, also lifting the exhaust valve, while on the left side is a lever which governs the belt tightener and which can be operated without dis-

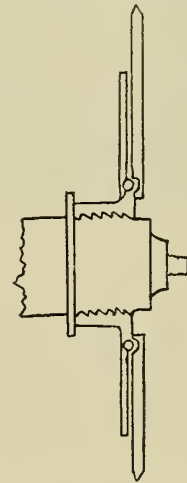
is placed on the rear forks and connects with a large exhaust pipe, which passes to the valve housing. This pipe is bent to conform to the shape of the motor base, and being quite long forms almost a semi-circular and very silent muffler. Option of either $2\frac{1}{4}$ or $2\frac{1}{2}$ -inch tires is af-



HARLEY-DAVIDSON CARBURETTER

fording. Persons saddles and Sager spring fork are included in the equipment. The weight of the machine is 150 pounds and the price is \$210. The double cylinder lists at \$275.

The Fowler-Manson-Sherman Cycle Mfg. Co., Chicago, staged four models; one tri-



BROWN COMPENSATING SPROCKET

cally in the frame in front of the bottom bracket, both the bottom bar of the frame and the hanger bracket being bolted to the motor base in front and rear. The extreme end of motor base is eight inches below the centre of rear wheel and has a clearance from the ground of six inches. The seat mast is bent to follow the shape of the rear wheel to a certain point and then goes up on the regular seat mast angle. By this construction the saddle is brought well up over the rear wheel and an extra long top bar secured, permitting the use of a very large tank. This tank is a special feature, containing as it does not only gasoline and oil, but the batteries as well. Its measurements are: length, 24 inches; depth, $5\frac{1}{2}$ inches; width, $4\frac{1}{2}$ inches. It will hold seven quarts of gasoline, one pint of oil and three standard dry cells. The left side has a door or slide in the center which opens the entire length of the tank, permitting the cells to be stowed therein on their sides. The cells are separated by springs. No. 1 is grounded on the tank and from No. 3 runs the wire to the coil. The oil tank is equipped with pump feed. This combination tank and case is very

neat, and to replace cells or to test them no simpler arrangement could be devised, as each and every battery and connection is exposed when the door is opened, and the door is so arranged that it can be quickly removed.

Another feature of this model is the Brown compensating sprocket, which is attached to the rear hub, producing a great reduction in the stresses on the rear wheel.

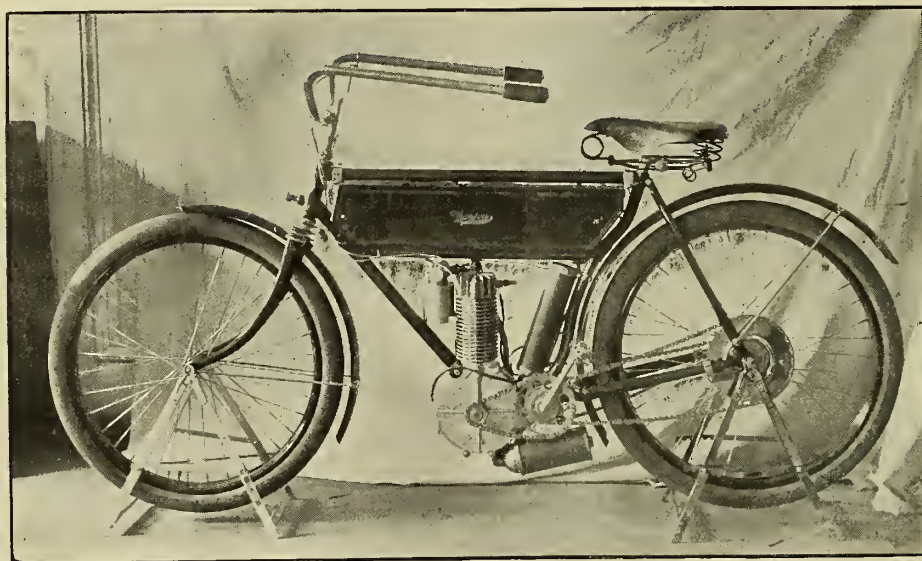
the weight of the rider, and will so remain for 6,000 miles without adjustment. Because of the use of these leather washers, the makers guarantee that no chain will be broken by the impulse of the motor. The short drive motor chain pulls in a straight line with the long chain, using six teeth on motor, 17 and 10 on countershaft and 26 on the rear wheel.

The weight is well distributed as the motor

ate generator type. The generator is a long cylinder which is designed to be attached to either the front forks or lower frame tube, while the lamp itself is of new shape and has a double tip burner and powerful reflector.

One More Motor-Assisted Bicycle.

While the idea of the "motor assisted" bicycle, as it is called, never has gained ground at all readily even in England, where its staunchest adherents seem to exist, still it never is allowed to fade entirely out of sight. There are on the market several machines which in a general way answer to this description from their light weight and low motor power, and one new arrangement of the convertible order, was brought out in connection with the bicycle

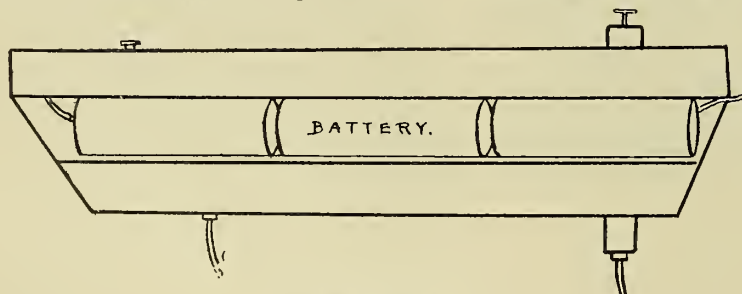


MANSON-BROWN MODEL

This sprocket consists of three metal pieces and two leather split washers, one being round, the other flat. The chief element consists of a disc screwed on the hub. At the outer edge of this disc is stamped a groove, which on one side makes it concave, on the other convex. The concave side faces the hub spoke flange and has in

is placed considerably in front of the seat mast while the rider is well over the rear wheel. The handle bars are exceptionally long, measuring 17 inches from head of frame to seat mast.

This model is equipped with Thor motor, carburetter and muffler of 1907 type; Thor double grip control and rigid forks. A



MANSON TANK

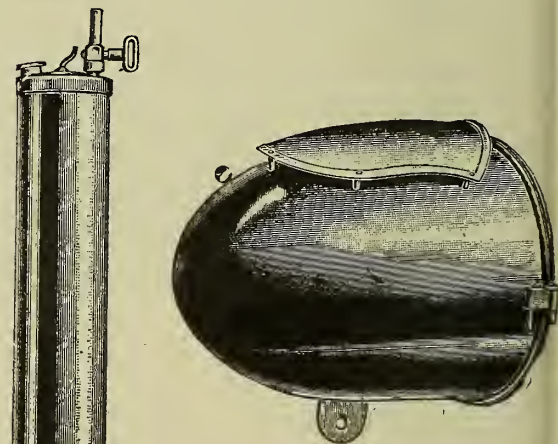


SEC. VIEW

it a split washer made of $\frac{3}{8}$ -inch round leather belting. Adjacent to this is placed a larger disc, almost the size of the sprocket, with a concave groove to correspond with the one on the flange disc. When fitted together they provide a bed for the round split leather washer. On the outer side of the flange is placed a flat rawhide washer on the convex flange. The sprocket has a concave groove cut to correspond with the convex groove on the disc. Four bolts pass through the sprocket sides and screw into the large disc on the inner side of the flange disc. By their use the compensation can be adjusted to

striking feature of these forks are the sides which are shaped almost like the letter U. The claim for this construction is that it brings the weight closer to the ground and brings it well forward of the weight. The forks constitute a very radical departure from previous standards of cycle construction.

The Columbia motorcycle headlight, exhibited by the Hine-Watt Mfg. Co., Chicago, was one of the surprises of the show and that it caught the motorcyclists fancy is undoubted. It is a neat and compact reproduction of the automobile and separ-



COLUMBIA MOTORCYCLE HEADLIGHT

exhibit at the Paris Salon. The Birmingham show, recently held, however, brought out another—by Broadway & Croft—which, unlike any of its rivals in point of weight alone, or in fact, in any other respect, mounted a two-cycle motor. Simplicity naturally is one of its chief features, as no control levers are used, barring only a compression relief on the cylinder head, which is used both in starting and in controlling the speed. The motor tanks and all parts are mounted together and presumably may be attached to any frame. It is said that a roadster bicycle fitted with this attachment weighs but 65 pounds.

Galalith, a substance which is a comparatively new rival for celluloid, and as such is recommended for use in all fittings and parts where the better known substance is now employed, is made from the casein of cow's milk. Despite the fact that more than 30 gallons are required in the manufacture of a couple of pounds or so, it is said to be comparatively cheap and fully as easily worked. Unlike celluloid, it is odorless and non-inflammable.

FRENCH CRACK'S TRAGIC END

Mystery in the Death of One of France's Fastest Riders—World's Records to His Credit.

Generally speaking, the French are racially romantic, and so when on the morning of January 26th, the general public of Paris opened its morning newspaper and read how Rene Pottier, the famous racing man, had the day before hanged himself, it gave a merely Oh-well!-sort-of-shrug to its shoulders and promptly forgot the incident. Not so the sporting part of the public. It was shocked, astounded, amazed.

On Thursday night Pottier dined with his manager and made some arrangements for the summer season. The following morning he arose at 9 o'clock, partook of a good breakfast and, after leaving instructions for the dinner menu, left his home at 10:30 o'clock and went to the cycle shed in Rue Chaptal, Levallois, ostensibly to fix his bicycle preparatory to starting to train on the winter track. Usually there is a crowd lounging around the sheds, but on this morning the place was entirely deserted when Pottier reached there. He obtained the key from the cafe opposite, went in and locked the door from the inside.

When dinner time arrived and Pottier did not return his young wife went in search of him, as he never missed meals without informing her. She visited the workshop, but upon finding it locked returned home. A few minutes before 3 p. m. M. Barthelemy, one of Pottier's intimate friends, called for the road champion, and upon being informed of his strange absence went around to the cycle sheds. Failing to get in the front door, he went around to the rear and through a window saw Pottier hanging by the neck. Assistance was called and Pottier cut down but too late, as he had been dead some time. The indications showed that Pottier had removed his bicycle from the hooks in the rafter, tied a rope to one of the hooks and after noosing the other end around his neck had jumped from a box. There was no reason for the deed, so far as is known, unless it was domestic trouble, as Pottier had, at the time of his demise, more money than at any other time in his life.

Rene Pottier was born at Moret (Seine-et-Marne), a little more than twenty-seven years ago. He did not begin to take up bicycle racing until he had almost finished his term in the militia at Coulommiers. His first notable race was in 1903 when he beat Marcel Cadolle, for first honors in the Bordeaux-Paris road race for amateurs. He finished second in the road championship of France, 100 kilometres, in 1904. In the same year he defeated Lecuyer, in the Grand Prix Municipal, at the same time

establishing a world's hour record for amateurs, without pace, of 40 kilometres 80 metres. Later Pottier tacked 260 metres to his record, but it was broken the following year by Breton. His record during 1904 was exceptionally clean, and only three riders had been able to take his measure—Cadolle, Breton and Darragon. At the end of 1904 he turned professional after trouncing Meredith and Lecuyer in a match race. During 1905 he finished third in the Paris-Roubaix, second in the Bordeaux-Paris and on October 22 met Marcel Cadolle and R. J. Walthour in an hour's race behind human tandem pace. Pottier won



RENE POTTIER

and set up a world's record of 30 miles 855 yards, one which still stands and is likely to stand for some time. Last year he again finished third in the Paris-Roubaix event but on June 23, at the Grand Prix meet at Vincennes, he won the Consul General's prize, one greatly coveted by the riders. His biggest victory of the year was made in July, when he won the Tour de France, without doubt the most classic of all France's notable road races. His prize money alone in this race amounted to \$1,610. To win he had to outride such pluggers as Trouselier, Passerieu, Breton,orget brothers, and so on. His last victory of account was on September 8 and 9, at Paris, when he captured the Bol d'Or after riding twenty-four hours behind tandem pace. He broke the world's record, covering 578¼ miles within the specified time.

The Dog and the Toll-Dodger.

In the neighborhood of the Prussian city of Stettin lies a pretty wood called Buchheide, on the right bank of the Oder, the cycling route to which is a long private road, the owner exacting a toll of five pfennigs (about one cent) from each cyclist who passes. It occasionally happens that riders, usually through ignorance, omit to stop and pay the toll, whereupon a specially-trained dog is at once sent in pursuit of them, the cyclists being not infrequently seriously bitten by the animal. In an action arising out of this unusual method of toll-collecting, the court, corresponding to the American court of appeals, ruled that it is legitimate to employ canine assistance in the manner described.

BIRTHDAY BANQUET IN BOSTON

Mother Club of America to Hold Twenty-Ninth Annual Dinner—Eschewing "The Fripseries"—Officers Elected.

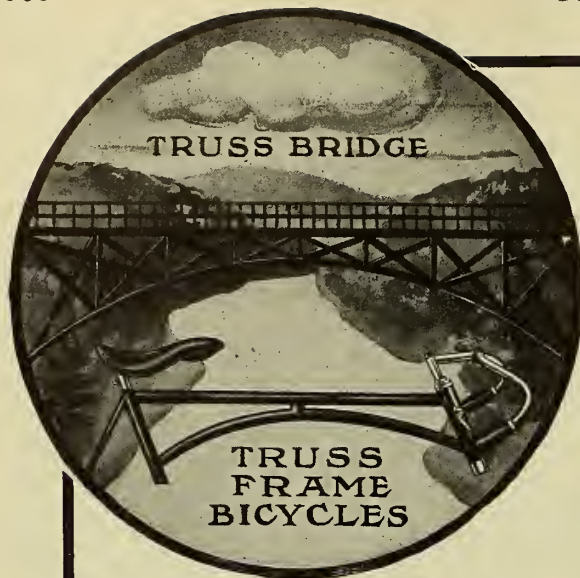
At its annual meeting in January the good old Boston Bicycle Club—the mother club of America—which next Monday, the 11th, will have passed "pier 29," elected Elliot C. Lee president to succeed J. S. Dean. Mr. Lee is not only a veteran cyclist but a man of great affluence, who, though he owns several automobiles, has not been weaned from his love of the bicycle. It goes without saying that Frank W. Weston, Augustus Nickerson and Walter G. Kendall will retain their respective offices of secretary, treasurer and captain; the governing committee will consist of, besides the officers, W. B. Everett, J. J. Fecitt, W. H. Edmands, Theodore Rothe and J. B. Kelley.

The club is to-night (Saturday) holding its twenty-ninth annual dinner, at Hendrie's, of course, and the invitation, as unique as any of its predecessors, bears the inimitable handiwork of "Papa" Weston. Excerpts from it follow:

"Some hae meat an' canna eat,
Some hae nae meat, but want it,
But we hae meat, an' we can eat
An' sae th' Lord be thankit."

"When the Scottish Bard penned the last two lines, did he have a prophetic eye on the Boston Bicycle Club? Whether or no, he certainly referred to our abilities and expressed our sentiments and very prettily, as every guest at the twenty-eight annual dinners which now have been writ upon the scroll of time most cheerfully, not to say admiringly, admit. That so many of us have lived through them all and still feel capable of tackling twenty-eight more, is another proof, if another were wanting, of what the beneficent bicycle which we started a-rolling in '78, will do for a man.

"That our twenty-eight previous experiences have taught us many things, goes without saying. The interminable fripperies of the common-place 'banquet' (so called), we have learned to eschew, and in the simplicity of huge roasts, cooked to a turn, carved at the table, and washed down with copious draughts of foaming 'amber brew' drawn from the wood before our eyes; as well as in some other simple things which will appear at the proper time, we justify the hatred of manufacturers of 'dinner pills' and the like, intensify our own pleasures, and banish all repentances in connection with things which the less experienced sometimes refer to as being 'so different in the morning.'"



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TOLEDO, OHIO

THIRSTS AND THEIR QUENCHING

Self-Imposed Torture Riders Sometimes
Endure Because of Training Ideas—
Advocates of Liquid Refreshment.

Why is it that the things we enjoy, and which give us most pleasure, are invariably declared to be injurious to us, morally or physically, whereas, on the other hand, the things we abhor, which give us pain, and which we would gladly dispense with altogether, are the things which those who profess to "know all about it," claim to be absolutely indispensable to our welfare, and to be indulged in at all costs, no matter how strong our aversion may be?

In propounding this conundrum to you I lay no special claim to originality, as I am well aware that something of the sort has been thought, or uttered, or written by others during the centuries that the past has eaten up. It is a conundrum, however, to which I believe I devoted the earliest dawn of my reasoning faculties, for far back in the pre-trousers period I can recollect how the difficulty of satisfactorily solving this problem when deprived of what I deemed a fair allowance of some toothsome but indigestible compound was wont to seize upon my younger brain like a veritable obsession, says Jock, in the *Scottish Cyclist*.

Why should jam be regarded as bad, and jalau—the antidote—be welcomed as good? The first was in every way desirable, while the latter was, and still is, I believe, the veritable abomination to the palate. To assert, therefore, that the former should be banned in favor of the latter was so obviously anomalous, so antagonistic to natural instinct, that it was no wonder my questioning powers were roused into full activity at an early stage, nor was it surprising that, in the absence of a satisfactory answer, I grew to regard my lawful guardians with some suspicion, if not with actual distrust, when their views on such important subjects proved so illogical and so utterly at variance with my own ideas.

Maturer years have not brought me a fair solution of that problem of my early youth, and though jam does not appeal to my gastronomic proclivities with quite such force, I am still frequently brought up sharp against some meddlesome "authority" who places under interdiction one or other of my favorite pursuits, or some habit or taste in which I specially delight to indulge. Mankind appears to have been taken in hand by a host of such authorities, and between them they have mapped us out internally, externally, and eternally, and danber-boarded the human system with such horrible thoroughness, that no matter what we may do or may not do of a pleasant nature, we are said to run the risk of total extinguishment, either in this world

or the next, or possibly both. Sleeping or waking, lying (please do not misunderstand this word) or standing, walking or cycling, I find the only way to be safe is to be thoroughly uncomfortable. If I give way one moment to an inclination to do something of a pleasurable nature, behold! a moment later I read, or am told, that there is some scientific or moral reason why I should refrain, and act in an entirely different way.

Nowadays, however, I am more callous than of old, and can read a column in "The *Lancet*," or a whole page of "Sunday" reading in a weekly newspaper, which between them traverse my whole daily rule of life, without a shiver, or a qualm of conscience, or the tiniest resolution to lead



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a better life. I can even read a handbook on training without awakening the smallest desire to forego a single pipe or abstain from a single bumper on the road. I think it was this anti-drink advice that forced me into opposition to all the advisers referred to, for I regard the cyclist's thirst as a cherished possession to be reasonably catered for and not wholly exterminated and rendered impossible by some Spartan-like abstemiousness when nature calls for liquid replenishment. Now, what cyclist does not know what it is to feel thirst, not that sham thirst apparent when men call, "Let's have another," or "What's your poison?" but the real thing, when the meanest liquor tastes as the nectar of the gods, when your tongue has to be removed from your palate with the aid of a flat spanner, when your throat is dry as the Sahara, and when your body radiates heat enough to frizzle the clothes that cover it?

That is the real thirst, and the man who neglects it, and calls it "training," should be buried Tantalus-wise through the ages with all the most cooling and tempting beverages before his eyes. Yet there are two

men who do this thing under the belief, I suppose, that it is good for their health; they speed through the land a wheel, parched and dry, because some idiot in his "guide to training" has stated drinking must be tabooed in order to get "fit." "Fiddlesticks," is my relevant reply to such advice, and I offer the counter advice to my touring friend to drink when thirsty and pitch that book on the fire. Does a man forego food when he is hungry? Of course not. Then why, in the name of common-sense, should he be asked to deny himself the still more essential drink when nature tells him as plainly as possible that the moisture which has oozed from the pores of his skin, and now soaks his shirt, requires replacing. I had a touch of the non-drink mania some years ago when infected with the road-speed fever. I rode long journeys between drinks, and "kidded" myself—fool that I was—that the more I abstained the fitter I would get, and that a certain "fifty" in the club would be as safe as houses for me. I suffered a purgatory as I passed the wayside hostelry, consumed with a raging thirst, and tantalized by the foaming beakers into which wiser men were dipping their noses as I pedalled onward, and the result was—defeat, and, what was more to the point, defeat by a teetotaller chap who used to drink sodas and milk and ginger beer by the gallon, and who laughed to scorn my abstemious strenuousness in training. Reader, did you ever hear of one Karl Kron? Perhaps not, for Karl flourished in the public eye at a period when many of my readers were in their swaddling clothes, when men sat astride a high wheel with the whipcord tire, and enjoyed their cycling more than their successors of the present day. I introduce Karl to you here, because he was one of the great pioneer tourists of America, and because he was an ardent advocate of the policy of drink when you're dry. I think even the C. T. C. would have recognized a genuine tourist in Karl Kron, but it was not so much his touring as a wonderful book he wrote, entitled "Ten Thousand Miles on a Bicycle," that made him famous. I have never read but one chapter through in that voluminous work, and, honestly, I have never known another who achieved so much as I in that direction, but that one chapter has lingered in my memory as the voice of a kindred soul. Karl actually burst into song at the finish. Listen to what he sang:

"Drink all you can, my thirsty man,
Nor choke in saddle badly;
Don't ever fear good lager beer
When there's no water handy.
Drink pints of ale, milk by the pail,
But never rum or brandy.
Drink half-and-half, or shandygaff,
Or lemonade or cider;
Drink till your thirst is past its worst,
Then mount a freshened rider."

Now, the sentiments of the above, I must confess, appeal to me more strongly than

does the literary merit apparent, and that there was sound common-sense in what he wrote is evident by the fact that the writer is, or was until very recently, still in the land of the living, still pedalling an old-fashioned ordinary bicycle, and still, I have no doubt, copiously quenching his cycling thirst. But I do not quite fall into line with his recommendations of certain beverages. "Pints of ale" and "half-and-half" are among the deadly sins of the cyclist drinker, nor would I recommend water without being well informed as to its pedigree, and milk is not always to be indulged in when very dry, unless it is well diluted with soda water. For the rest, I avoid very gassy minerals, and pir my faith to such innocent decoctions as lime juice, stone ginger, lager beer or cider. Heavy beers, stout, and spirits are treacherous things for the tourist to touch during the day, but when the day's work is done the rider will not hurt to follow his usual rule as to indulgence in such intoxicants. I am afraid what I advocate will not commend itself to my teetotal friend on one side, or my acquaintance with the nose redder than the cherry on the other; nevertheless, I write from practical experience, and as I have no call to pose as a missionary for either tea or toddy, my views may be taken as those of one who believes in steering a middle course between the extremist doctrines on either side.

"Six Days" on Home Trainers.

Carl Showalter, of San Jose, Cal., is the "six-day home trainer champion of the Pacific coast." During last week the Garden City Wheelmen of San Jose ran what they designated a six-day home trainer championship and Showalter made the best time of the week. One race was held each evening and the two riders that made the fastest time up to Saturday night rode a race for the final honors.

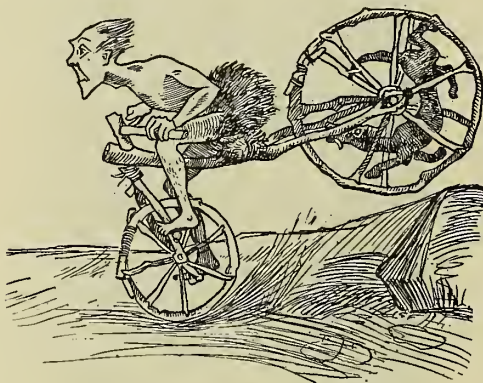
All the races went one mile. W. Chaboya defeated his brother, C. Chaboya, on Thursday night, covering the distance in 2:27½, which was the fastest time until them. The following night Showalter met and defeated Livio Maginni in the fast time of 2:19¾. This brought Showalter and Chaboya together for the final struggle, and Showalter, who pushes a bicycle geared to 160, simply made the rollers sizzle. He covered the mile in 2:09½, the former record being 2:19, made by Mainland, of San Francisco. Showalter got a gold medal and Chaboya a silver cup. The funds derived from the meet will be made the nucleus for a fund for starting a bicycle track in San Jose, a project which has been agitated for some time.

"The A B C of Electricity" will aid you in understanding many things about motors that may now seem hard of understanding. Price, 50 cents. The Bicycling World Co., 154 Nassau Street, New York City. †

FERTILIZING COMMENCES EARLY

Pros Find This the Proper Season for Preparing Land—Amusing Specimen at Salt Lake.

No doubt the person unacquainted with the ways and wiles of professional bicycle riders readily believes that this is the season of absolute inactivity, that the pros are reclining in easy chairs, enjoying life to a hazy extent on their winnings or if not so fortunate are either slinging ham-and-make-it-fat, please—and draw-one-in-the-dark, or assisting in the custody of the funds of street railway companies. The manner of labor or way of passing the time away is irrelevant in this case, however; the point in question is that the average man supposes, that is if he thinks about



PRE-HISTORIC "CANINE ASSISTED" BICYCLE

it at all, that the professional racing man's thoughts are at this time of year far removed from things cycling or appertaining thereto. He is wrong, though, as this little tale will ultimately prove.

This is the season of the year for "spreading the bull." To those not familiar with dressing room slang let it be explained that this vulgarity is supposed to denote tooting your own horn with a vehemence not curbed by innate modesty. In plainer language the racing cyclists are beginning to besiege the track promoters in parts of the country where they are not so well known, with requests for contracts, which later simmer down to pleas for transportation.

As a good illustration of this, the following letter, written by an Eastern rider to "Manager" Halvorson of the Salt Lake saucer, is reproduced verbatim. To those who are acquainted with the career of the rider in question the letter will seem rather amusing. Without mentioning any names the "record-holder" and winner of the "four one hundred mile races in one year out of six," (there is only one held each year) is the rider who changed his name by drop-

ping some letters to make it appear less Hibernian and more Frenchy, the popular reason for his doing so being that there are more French "champs" than Irish. Well, anyway, this rider rode as an amateur until June 24th last, when he competed in his first "known" cash-chase and accidentally got fourth, all the other contestants being as near champions as a forty-second cousin is to being a near relation. Then he got reinstated after the pros had the damper put on them but he recharged his mind and restarted as a money maker in a ten-mile open on August 12th. By either negligence on the part of the other riders or a prearranged plan, he won. The only money he has won since then has been four dollars, for lap prizes. But here is the letter:

"I take great pleasure in writing you a few lines in regards to my standing as a bicycle rider and I think you know my past record. But anyhow I will state it. I hold the five-mile unpaced record on the road with a standing start, and 2½ miles down the road and 2½ miles back in 12:51. As I am at present a pro rider and did some pretty good work. I have won four one hundred mile races in one year out of six. In my first pro race at Vailsburg, I finished first in the ten-mile open and won by forty yards from Floyd Krebs, and I always get in the money. I am about to take up pace following and I think I can make good. You can look me up and if you see and feel favorable in giving me a contract for the coming season I will thank you very much. I would like to get down to your track and show you what I can do. Here is some clippings (a room full) I would like you to look over. Please let me hear from you."

MacLean Beats his Milkman.

Hugh MacLean, of Chelsea, defeated James F. Moran, his milkman, in two match races at the Park Square skating rink last week. About 4,000 people saw him turn the trick. An unlimited pursuit race was the main event and it took MacLean four miles 1½ laps to tag his fellow townsman. It is evident that the famous Chronograph Club of Boston did not hold the watches as the time was announced as 7:15½, which is somewhat better than the world's record on a banked track. These men rode on a flat floor. Moran slipped on one of the turns in the one-mile match so the race was called off and a half-mile race substituted. MacLean crossed the line first in 1:10.

Sprint Riders to Stick Together.

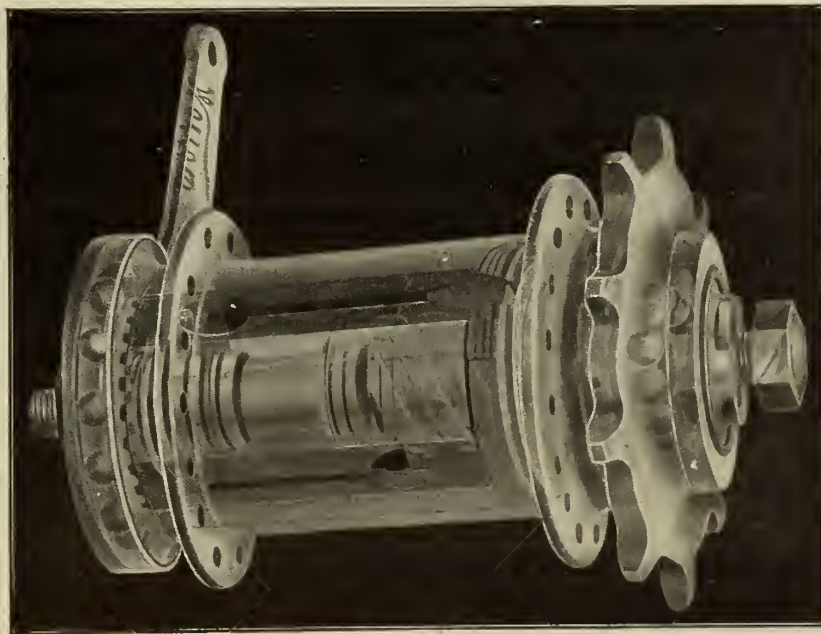
The German professional sprint riders who recently decided to dissolve their union because of the general decline of sprint racing in that country have reconsidered their decision. They will not disband, after all, although the membership has sunk from 205 to 75.

If you failed to do so last year

Why Not Have Your Bicycle Morrowized

for this season's use?

It is the time when your local dealer or repairman can give the most time and best attention to the work.



The Morrowized bicycle is a more pleasurable
bicycle and a safer one.

If you are not fully informed drop us a line.

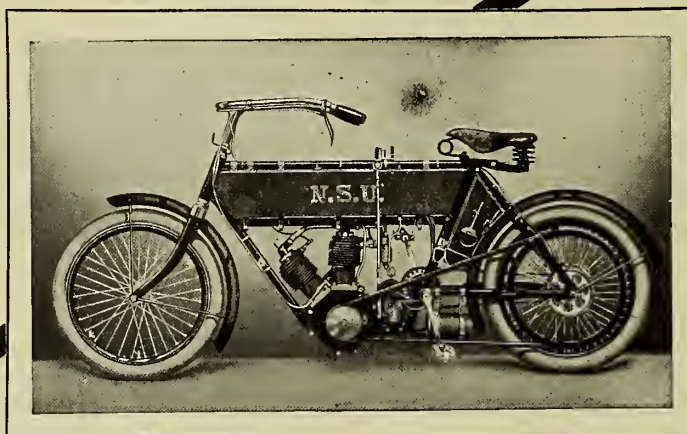
ECLIPSE MACHINE CO.,

Elmira, N. Y.

N. S. U.

IN USE

Your
1907 Mount
should be
an **N. S. U.** with
Magneto
Ignition



The Owner
of an **N. S. U.**
with Magneto Ignition
writes in "THE
MOTOR CYCLE"
London, 19-XII-06:
"Since October, 1905,
I have ridden well over
19,000 miles, and I
have never had the
slightest trouble with
the Ignition."

Over 10,000

Let us send you our Catalogue with particulars of the 1907 Models

N. S. U. Cycle & Motor Company

78 Charlotte Street,

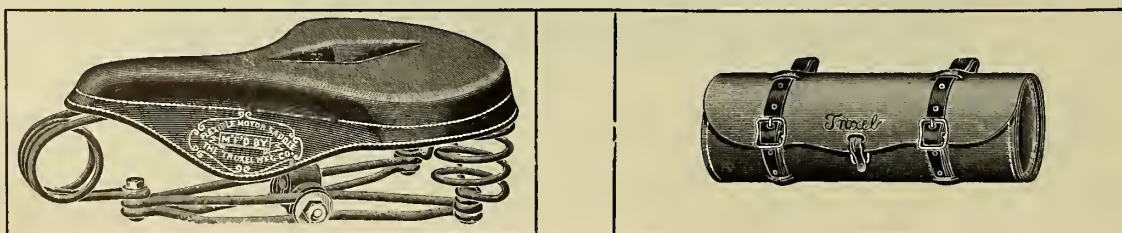
LONDON, W., ENGLAND

THERE NOW IS A

TROXEL SADDLE For Motorcyclists

LIKEWISE A TOOL BAG AND A TOOL ROLL

The mere announcement should cause all interested in motorcycles to sit up,
take notice and make inquiry



TROXEL GOODS ARE ALWAYS ATTRACTIVE GOODS
BOTH IN RESPECT TO PRICES AND QUALITY

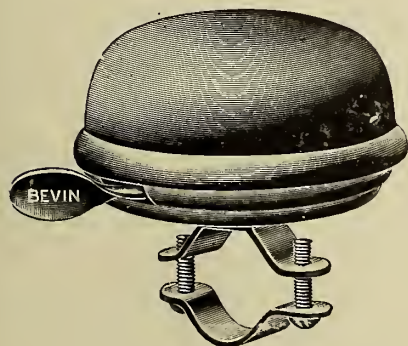
CATALOG AND QUOTATIONS ON REQUEST

Troxel Mfg. Co.,

Elyria, Ohio

THE "Good Old Standbys"

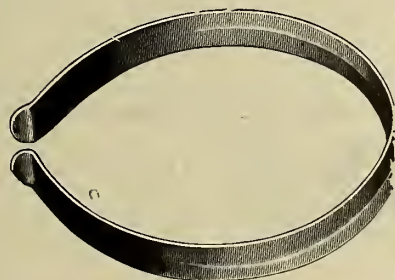
BEVIN Bells



BEVIN Toe Clips



BEVIN Trouser Guards



Prices as interesting as ever.

Bevin Bros. Mfg. Co.
EASTHAMPTON, CONN.

Suggests Shoes With Rubber Uppers.

A cyclist who for years has made it a practice to ride throughout the year, and who by that token has suffered perhaps more than the average amount of the discomforts of cold and wet feet, advances the idea that for many reasons, and particularly during cold or wet weather, the use of rubber shoes, or at least shoes made partly of rubber, would be distinctly advantageous. However strong and satisfactory as to its enduring qualities, leather may be, the fact remains that it becomes water-soaked and stiffened during rainy weather, and besides becoming a very uncomfortable piece of wearing apparel, tends to catch and retain an amount of water which to the inexperienced would seem to be impossible. Shoes having the durable elements furnished by a leather sole, but fitted with rubber uppers, on the other hand, would be more flexible, as it is contended, would absolutely resist the effects of water, and would tend to keep the feet warm even when the temperature was very low. It is a common belief that rubber shoes are not the most healthful articles which may be put on the feet, and doubtless there is more truth than fiction in the assertion, yet it is evident that what in warm weather would be a disadvantage on this account, during cold and wet seasons, would be an equal advantage.

Means High Speed to the Fires.

While the fire department heads in practically every city of note have either been provided with automobiles or are making strenuous efforts to get them, to enable them to get to dangerous fires in the shortest possible time, there is one fire chief that he can go the automobile one better. He is the head of the department in Colorado Springs, Col., and to do it he will hereafter use a motor bicycle for getting to fires.

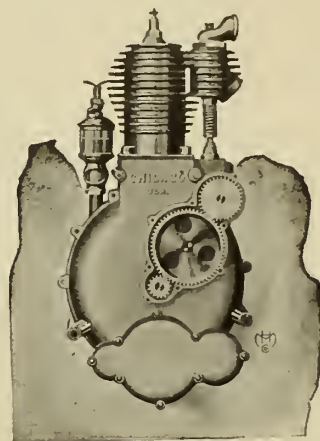
Oldest Cyclist Suffers in Collision.

Thomas Enstone, of Gloucester, England, who is said to be 103 years of age and, therefore, the oldest cyclist in the universe, is lying at the local hospital in a precarious condition due, by the perversity of fate, to an accident caused by a bicyclist. The old gentleman was taking his daily "constitutional" on his tricycle when he was run into and upset by a bicyclist. His thigh was fractured—a serious mishap to one of his years.

Manifestation of Blind Ambition.

Ambition will lead one to do astonishing things sometimes or to express equally as startling desires. In London it is claimed to be a blind cyclist whose great ambition is to make a tour awheel around the world. Every evening this phenomenal cyclist takes a ride but it is not explained just how he avoids colliding with animate or inanimate objects in his sightless peregrinations.

ARMAC



The Motorcycle of Quality and Power.

No Freak or Radical Changes Made
in Our 1907 MODEL for the

ARMAC MOTOR long ago reached a point of perfection where improvement is trivial and the new features for the season are along the lines of comfort and safety for the rider.

The Armac Motor is and HAS been a
3 H. P. MOTOR

FOR THE PAST FOUR YEARS.

Advocates of the 1½ to 2¼ H. P. motors are now contradicting their former statements as to the power of a motor that is practical for all around use, by bringing out a larger motor—NOT at the regular price but at an advance price, while the ARMAC price remains the same.

IS THIS .NOT .PROOF .CONCLUSIVE
that the ARMAC has been at least four years
ahead of other makes?

Armac Motors and Motor-Cycles

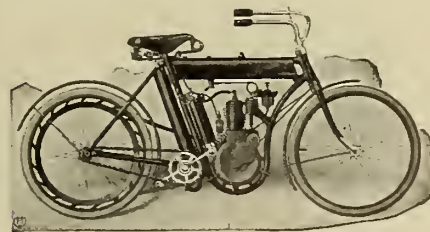
are made interchangeable on perfected jigs and tools in the hands of expert motor mechanics of years experience in this particular line and the

1907 ARMAC

Has Reached the Standard of Perfection in Workmanship, Appearance, Reliability, Economy, Power and Comfort.

NOTE.—The extra low frame, upright position of motor placed below the center of gravity, long handle bars and position of rider, giving the comfortable riding position. Your choice of 26 or 28-inch wheels.

Our 16 page catalog gives more facts that will convince you that the Armac possesses all the good points of a practical motorcycle and none of the bad ones.



Exhaust Lift, Timer and Throttle Control
Operated Entirely from the Grip.

Send for Catalog "C" and Agency Application Blank.

IMMEDIATE DELIVERIES.

ARMAC MOTOR CO.

472-478 Carroll Avenue, CHICAGO, ILL.

Blue Goggles and Paris Racing.

The secret is now revealed. A Parisian sporting daily has "discovered" why Floyd McFarland has not won a race since he has been in Paris this trip. The "Old Man" rides with a pair of blue goggles over his eyes and this has caused him to lose all his races, though why the "discoverer" fails to state. The last race in which the veteran American competed was at the Velodrome d'Hiver on the 27th ult. It was a two-heat match between McFarland, Darragon and Poulain, the men being paced by relays of tandems. It was somewhat of a surprise when Poulain was acclaimed the victor in both heats as this style of racing is new to him. The American got second in both races.

In the first heat, at five kilometres, Poulain by virtue of being a quick starter, got away first and had gained ten lengths on his adversaries before the usually slow-going tandems got under way. In several laps Darragon assumed the lead with McFarland close up. The latter's pacers suddenly and without warning decided to emulate a locomotive and they started to sprint, but "Mac" would not be shaken off and in a short time he was in front for a gain of 20 yards. At a few laps to go Benyon and Delage pulled Poulain past McFarland and Darragon seemed to tire. In the final sprint Poulain beat McFarland by two lengths and Darragon by half a lap.

The start of the second heat, 25 kilometres, was a replica of the preceding get-away, Poulain getting steam up quickest only to lose the advantage thus gained through fault of his pacers. Darragon was in second position, while McFarland seemed contented with trailing along in the wake. Nothing of interest occurred until after the tenth kilometre, ridden in 12:33½. About a mile after this Darragon ran up on the rear wheel of his tandem and threw himself. He pluckily remounted and tried to go on, but as he was injured and had lost four or five laps, he saw the futility of continuing and left the battle between Poulain and McFarland. McFarland had been leading for some time when the Frenchman called on his pacers for

more speed and he went in front. Just then an accident happened to McFarland's equipment and he had to change pace, which lost him some valuable ground. He tried to come back with a long sprint but Poulain kept the shadows behind him and finished about a hundred yards in front.

At the same meet Rugere defeated Parent and Tommy Hall, Parent finishing one and one-half laps behind and the little Britisher four and one-half laps.

Walthour Gets the French Vote.

In a plebiscite taken by a French journal to determine the most popular pace-follower of the present time, R. J. Walthour, of America, received the most votes, beating the world's champion, Darragon, by 33 votes. Several American riders evidently are popular on the continent, as the appended result of the vote indicates: 1, R. J. Walthour, 1533; 2, Louis Darragon, 1500; 3, Nat Butler, 1382; 4, Paul Guignard, 1341; 5, Thaddeus Robl, 1246; 6, Hugh MacLean, 1178; 7, Louis Mettling, 993; 8, Piet Dicketmann, 968; 9, Charles Parent, 962; 10, Henri Contenet, 956; 11, Tommy Hall, 955; 12, August Bruni, 837.

Prince Has Coliseum Project.

According to the news from Atlanta, Ga., coming by the roundabout way of Salt Lake City, Jack Prince is building a large coliseum, 200 x 300 feet, in the Georgia city in which he will build a ten-lap track and hold bicycle races this summer. It also is stated that John M. Chapman, of Salt Lake, will manage the projected saucer, but it is doubtful if Chapman will leave the easy living he has been accustomed to in Zion, for an uncertain alliance with Prince even if the talkative promoter's plans have got beyond the "cuff" stage. Another rumor has it that Chapman may manage the Vailsburg oval.

Hanford Sets a Good Example.

The city trustees of Hanford, Cal., are liberal minded. They have granted a permit to cyclists allowing them to use the sidewalks when the weather makes riding in the middle of the streets impossible.

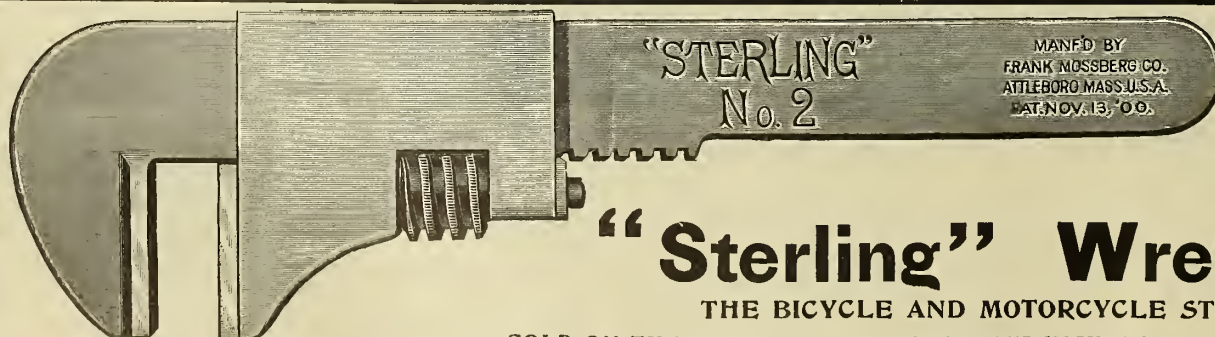
France Proves Its Plan Feasible.

The suggestion has several times been put forth that were the National Cycling Association to seek to stimulate an interest among the younger element by the creation of a "junior championship" or a "public school championship," or something of the sort, that it would be making a good move in the right direction. As evidence of this fact is cited the popularity of cycling and cycle racing among the boys of France. There the promoters of race meets never suffer from a dearth of good amateurs. Races for boys under a certain age are held every once in a while and an inter-scholastic championship is held every year. Only a few Sundays ago at the Parc des Princes track, Paris, a race called "Tout-Petits" (all little) was held. The maximum age limit was 17 years and there were actually 375 starters in this race. The winner was a boy named Lecam, who covered the last eighth in 15¾ seconds, rather good going for a youngster.

Will Try to Break World's Record.

Although strictest secrecy is being maintained it is expected that an attempt will shortly be made to break the world's hour record behind pace. Guignard, who holds the present record of 59 miles 30½ yards, is said to be the rider who is making preparations. It is not merely to break the record that Guignard is after, as he told the *Bicycling World* man at the time of the six-day race, but his ambition is to ride 100 kilometres (62.1 miles) within the hour. Naturally the attempt will be made on the track at Munich, acceded to be the fastest oval in the world, and for several weeks three of the best pacemakers in the world have been practicing on the German track. They are Bertin, with a new two-cylinder machine; Darioli, with a new special two-cylinder tandem which Constant will guide, and Peguy and a single cylinder machine to be held in reserve in case the other two meet with mishaps.

"The A B C of Electricity." Price, 50c. The Bicycle World Co., 154 Nassau Street, New York City.



14 Different
Styles of
Wrenches

"Sterling" Wrenches

THE BICYCLE AND MOTORCYCLE STANDARD

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EVERY WRENCH GUARANTEED

For Sale by all the
Leading Jobbers

FRANK MOSSBERG COMPANY, Attleboro, Mass.

THE BICYCLING WORLD and MOTORCYCLE REVIEW

FOUNDED 1877

Volume LIV.

New York, U. S. A., Saturday, February 16, 1907

No. 21

WALBURG GOES TO READING

Well Known Racycle Official Makes an Unexpected Change of Base—Will Serve as Sales Manager.

Harry Walburg has become sales manager of the Reading Standard Cycle Mfg. Co.

He is the same Walburg who was treasurer of the Miami Cycle & Mfg. Co., and whose name, it seemed, was indissolubly linked with the Racycle. Walburg and Racycle were so closely linked for so many years that it will be difficult to disassociate them. That he ever contemplated making a change of base was not suspected, and he is so widely known and so deservedly well-liked that the fact that he has transferred his famous smile from Ohio to Pennsylvania is little short of a sensation.

Walburg already has established himself in Reading and will move his family there during next week. He has subscribed for a block of stock in the Reading Standard corporation which is being formed, so that his interest in its affairs will be deep and abiding. That his influence will be felt is undoubted.

"The man who can meet Harry Walburg and not like him must be a peculiar chap," is a remark once made of him that is aptly descriptive and not too fulsome.

New Departure Gets Export Drawback.

It has been decided by the United States Treasury Department that on the exportation of coaster brakes manufactured by the New Departure Manufacturing Company, of Bristol, Conn., with the use of the Lucas lubricators attached thereto, and made a part of same, a drawback will be allowed equal to the amount of duty paid on the lubricators so used, less the legal deduction of 1 per cent.

To secure this drawback the preliminary entry must show the marks and numbers

of the shipping packages and the number of coaster brakes, with the Lucas lubricators attached thereto, contained in each case and in the entire shipment.

In addition to this the drawback entry must also show the total number of coaster brakes with the Lucas lubricators attached thereto exported, the total number of imported lubricators consumed in the manufacture of same, describing them as they were described in the import invoice, and, in addition to the usual averments, that the merchandise was manufactured of materials and in the manner set forth in the manufacturers' sworn statement. In liquidation, the quantity of Lucas lubricators, in condition as imported, which may be taken as the basis for the allowance of drawback may equal the quantity declared in the drawback entry.

Liberty in Trustee's Hands.

What was left of the Liberty Bell Co., Bristol, Conn., after the New Departure Mfg. Co., acquired its business, is now in the hands of a trustee. It appears that the New Departure Co. did not purchase either the Liberty debts or the bills receivable, and as the former overshadowed the assets—\$40,000 as against \$36,000—the trusteeship followed. An offer of 80 per cent. probably will be made to the creditors.

Maryland Dealers Form Corporation.

The Dean-Rullman Co., Towson, Md., has been incorporated by George R. Dean, Elmer E. Rullman, William J. Newman, August H. Rullman and Stanley Rullman. They will handle bicycles, graphophones and general merchandise. The capital stock is \$1,000.

Thomas Auto-Bi is Incorporated.

The Thomas Auto-Bi Co., of Buffalo, this week "took out its papers" as a New York corporation with \$30,000 as its authorized capital. C. E. Becker, W. C. Chadeayne and J. W. Van Allen are named as the incorporators.

PROMISES OF PROSPERITY

Indications of Increasing Business, Viewed by Prominent Jobbers—Plans For Promoting Popularity.

P. R. Robinson, one of the active heads of the New York Sporting Goods Co., has the reputation of being a very resourceful man; and the fact that he took up bicycles at about the time when so many merchants were dropping them, and has since built up a fine business indicates that his reputation is not undeserved. His concern is practically the only one that ever advertises bicycles in the New York daily papers and always they are heralded in a cheerful tone.

"Have the optimistic views concerning the bicycle business that are reflected in your advertisements any real justification in fact?" Robinson was asked a few days since.

"They have, indeed," he replied. "Our bicycle department sales for the past year just closed are some \$30,000 more than for the preceeding year, and the month of January shows a big gain over January of a year ago. We, therefore, view the business from an optimistic standpoint, and feel confident of its continuing increase and corresponding prosperity."

Andrew Wilson, president of the Wilson Trading Co., which now claims to be the only exclusive bicycle jobbing house in New York, is less satisfied with conditions in the trade, as he thinks organized effort properly applied could greatly improve them by stimulating interest in cycling.

"What needs to be done," said Wilson emphatically, "is to rouse people up in some spectacular way. Whatever committees or bureaus are working nationally should help local dealers to get up bicycle parades with horns and banners. Show them how to organize bicycle parades that will make as much noise as possible so that the general

public's attention will be forcefully brought to the subject of bicycle riding. The business now is just at a critical point. What improvement it is showing must be taken advantage of and made the basis for quick action, as good nursing is necessary to restore it to anything like its former vigor.

"A good scheme that some dealers have been working lately is to get testimonials as to the health virtues of the bicycle from physicians in the town and have them run in the local paper. If the local editor sees possibilities of subsequent advertising that will come as the bicycle business improves, he will generally be glad to run the physicians' comments in his editorial columns without charge.

"I don't believe very much in the general distribution of pamphlets on bicycling as has been proposed," he continued. "People will not be bothered reading circular letters and pamphlets. When I was a salesman in the dry goods business, the only way we salesmen could get letters to the heads of big firms that might buy from us was to enclose our communications in daintily scented society envelopes, addressed in an aristocratic feminine hand. All other letters were thrown away at busy seasons, and this is characteristic of the general attitude toward circular matter. If literature is to be distributed I think the *Bicycling World* would be the thing to distribute, because nearly everybody will read a magazine or paper that comes to them. Well prepared touring maps of various localities might also be used to advantage. These should give tours of from two to six days, with information as to hotel accommodations and charges, points of interest, road conditions and the like. A series of such maps and guides could be gotten up by experts with the aid of local dealers. Then in vacation time the bicycle would have a definite appeal for purchase and use.

"It is time the dealers made more money in bicycles than they have been doing lately, and the bicycle has got to be stirred up in both a national and a local way. American people need excitement and incitement to do things. Plans to popularize anything and make it the vogue must be made accordingly."

About Cyclometer Repairs.

Attempts to fix cyclometers with ordinary repair shop or jeweler's tools generally result in ruining the instruments. It is far better to return them to the manufacturer for repair, with the assurance that they will come back in perfect working order.

The Retail Record.

Dunkirk, N. Y.—Stephen R. Kale filed a petition in bankruptcy; liabilities, \$3,081.02; assets, \$1,707.37.

Passaic, N. J.—Harry Mintz, 154 Passaic street; fire; loss, \$300.

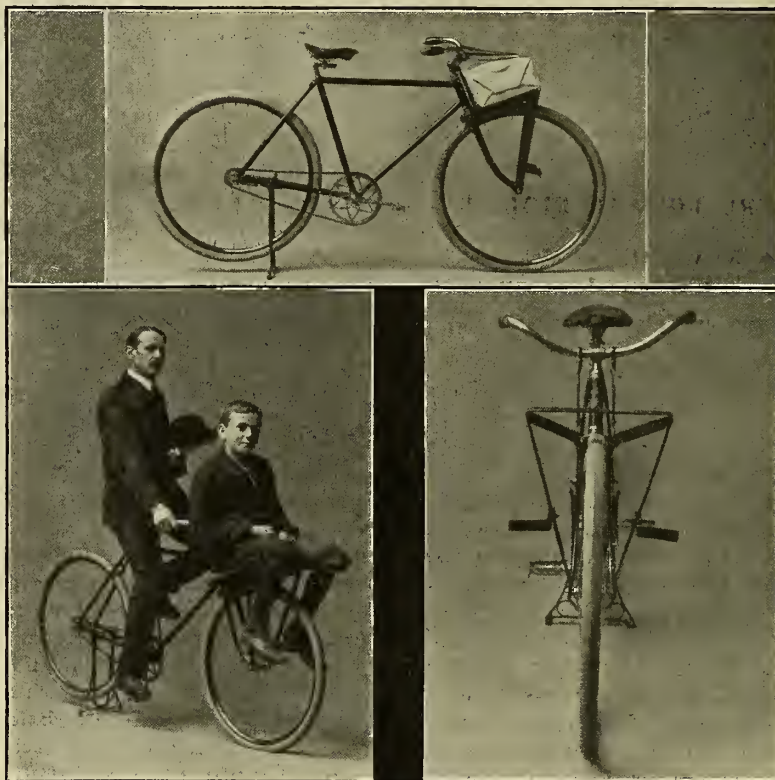
For Either Babies or Bundles.

However many carrying devices have been put on the market for attachment to the bicycle is hard to tell, but it is safe to say that all or nearly all of them have been designed for one or the other of two specific purposes, that is, either for carrying children or luggage. As a matter of fact, however, the need of a convertible device, which may be utilized for either purpose and which in either service is nei-

but little doubt that the tradesman who employs the bicycle in light delivery work, should find something of this sort well high indispensable.

Splitdorf's New Spark Coils.

Two new types of motorcycle spark coils have been placed on the market by the Splitdorf Laboratory, New York—one, a single coil measuring $9\frac{1}{2} \times 2\frac{1}{2}$ inches, designed for twin cylinder machines. This



ther cumbersome nor unsafe, is one for which is not a considerable demand has arisen which can be materially increased by the dealer with sufficient enterprise to bring it properly to the notice of the store keepers to whom it must appeal.

One of the few contrivances which is designed for this double purpose, is being marketed by T. C. Bradford, of Wilmington, Del., and is called Bradford's Child and Luggage Carrier—which is just what it is. As is apparent from the illustration, it comprises a light and neat framework, mounted on the head of the machine and stayed from the ends of the front axle as well as from the crown, the effect being to secure a solid platform, useful for any light transportation purpose. In addition to being adjustable for wheels of either 26 or 28-inch diameter, it is made to extend forward of the fork crown so as to accommodate itself to the size of the package which it is to carry. When it is used as a child carrier, the addition of a couple of foot rests on the main supporting braces, makes it complete and as comfortable as need be. Whatever may be the advantage of such a device for the rider whose uses are general in their nature, there can be

coil has five leads or terminals, designated as two secondaries, one primary, one battery and one ground connection. It is intended for motorcycles having a circuit breaker composed of a single contact spring and a cam with two noses, which insures perfect synchronism in the ignition of both cylinders.

The other coil is designed for use where high efficiency and small size are required. It is $5\frac{1}{2} \times 2\frac{1}{2}$ inches, and has four leads or terminals, consisting of one secondary, one primary, one battery and one ground connection. This coil is particularly adapted for motors with high compression. The weight of the coils are $4\frac{1}{2}$ pounds, respectively, and, needless to add, both are of "Splitdorf quality," than which there is nothing better.

Tool Bag That is Needed.

One of the things that is long overdue is the motorcycle tool bag provided with a lock and key of some sort. Those receptacles frequently contain tools worth many dollars and as men will "borrow" them without permission, a preventive would fill a "long felt want" and turn some money into the originator's till.

HOW DEALERS HAVE CHANGED

Sherman Recalls Their Former and Present Attitudes Toward Motorcycles and Cites Hurck as an Example.

The opportunity having presented itself, I was able for the first time to look upon a motorcycle exhibit—that at the Chicago Automobile Show—from a visitor's point of view. As such I was able to get in closer contact with both maker and dealer, and I soon learned that each was working with an amount of energy and enthusiasm rarely equalled. The conviction is forced upon them that the motorcycle industry is a real industry, and that for the pioneers in the field there is a rich harvest in sight.

Heretofore, in the East and South, the idea has prevailed that in the Middle West motorcycles were in quite general use, but such has not been the case, due to conditions unknown in the East. In the Western part of this country all things are up to date save the roads, which have proven the hinderance to the general adoption of motorcycles. However, being finally convinced that a motorcycle can go anywhere with any one who is able to manage it, the people in that section have proven themselves ready to buy.

To give an idea of the altered attitude of the dealers this year, John Hurck, of St. Louis, affords a typical instance. Three years ago when a motorcycle agency proposition was presented to Hurck he replied: "Why, those 'boats' will never run around this burg, and even if they did run they will not sell. The price is too high. You know this town is in Missouri and so am I."

At the New York show in December last, the same John Hurck traveled nearly 1,500 miles to visit the motorcycle exhibits and put down his coin with two prominent manufacturers for a number of the machines, stipulating immediate delivery of samples. At the Chicago show, two months later, he was again one of the first to appear with an expressed willingness to take 50 machines at once, and to give a check in full to the maker who would guarantee shipment within a week.

Hurck is one of the Missourians who must be "shown" every time. Only last year when inspecting a motorcycle delivery van he remarked:

"Do you think anybody would buy that 'tub?' Yes? Well, you will have to show me."

Now he is showing the manufactures how fast he can sell them.

Louis Flescher, of Omaha, was at Chicago with his order, and was heard relating how easily he earned \$150 with his side car attachment. Fred Williams, of Denver, placed an order for 25 with a well known manufacturer; while Ira Whipple,

the Chicago dealer, assumed the agency for about all the leading motorcycles he could possibly handle in order to have enough on hand to meet the demand. Fred Probst, of Terre Haute, and perhaps the oldest man in the country in the motorcycle business, journeyed to Chicago to place his motorcycle order.

To mention all of the well-known dealers from different parts of the country who were present would make a long list, but I have named enough of them to make plain the demand that exists in various States, cities and towns.

The time has passed when an order is placed for one machine for April 1st delivery; all motorcycle orders are now placed with specifications for immediate deliveries.

The manufacturers all promise early deliveries and it is to be hoped that they will be able to "make good." Many of the dealers, however, are skeptical regarding these promises, and nearly all of them declare that if they were certain the manufacturers could make prompt shipments they (the dealers) would go in heavily for local advertising and create a still greater demand.

I believe that if the manufacturers show the dealers this year that they have the machines to deliver, the result will be an undreamed of demand for their goods, as the dealers, East and West, certainly are at last thoroughly interested and enthused.

G. W. SHERMAN.

Making Use of Old Belts.

A rider who has had considerable experience with leather belts. of the built-up type, observes that frequently when a belt has worn down to such an extent that it is practically useless from the circumstance of its dragging on the bottom of the pulleys, there yet remain in it one or two strips of perfectly good leather which, barring the fact that they may be a little dry, yet are as strong as they were when perfectly new. To utilize these and save quite a portion of the cost of an entirely new belt, he suggests that the rivets holding the sections together be cut away and the good and poor parts separated.

Generally speaking, after a thorough cleaning has been given each of the strips, it will be found that the under section only is badly worn, so that by replacing it with a new strip a practically new belt may be secured. Before reassembling, all used portions should be cleaned once more in gasoline to remove all traces of grease and dirt, and then given a good coating of colon oil, which should be allowed to soak into the grain. A good straight-grained piece of chrome tanned leather should be selected for the new section, and it also, should be soaked in colon oil until perfectly pliable. In riveting the belt, work should begin at the middle and proceed in either direction.

BENEFITS OF DULL SEASON

Idle Hours That May Be Turned to Such Advantage That Busy Season Will Be Made Busier.

The seasons of slack trade are perhaps the richest in the entire career of a business man for making his opportunities count for more. The busy season is looked after; it's the time when trade is dull that the average man relaxes and inclines to let things drift, says a contemporary.

If there is anything that needs doing that has been neglected for want of time, the introduction of some new system, the replacing of cumbersome shelving for a neater stock-keeping device, an overhauling of accounts, a new series of advertising matter prepared, new stationery made ready for the printer, the slack season is certainly the time to do it and, if all was done then that needed doing, there would be no slack time.

It is fortunate for the enterprising retailer who understands the use of opportunity that there are seasons when the public is less free in trade demands than at others, else much of his internal affairs would go forever undone and finally prove the undoing of himself. This is the season when a man should pull himself together; should pick up the fag ends of the neglected tasks and thread them all back into their proper shuttles in the commercial loom. It is the best time for the purpose, too, for more reasons than because he has a little time; others have time also, and the work that brings in other industries will be better attended to. The printing that is given out in the dull season can be looked after more efficiently and economically than that which crowds insistently in where and when there is no room for it. The idle press can turn out its work at less cost than the overcrowded press and every order given out when orders are scarce helps to distribute the press of business more evenly over the season, an accommodation that a worthy printer will not be slow to reciprocate.

The well-balanced business has fewer idle hours than one that is less efficiently managed and, conversely, is less often swamped and over-crowded. Often the difference between profit and loss is little more than that between the highest and lowest running expenses of the year, and the nearer any business house can come to putting an even stress upon its working force throughout the year the nearer this expense may be brought toward the lower figure.

"The A B C of Electricity." Price, 50c. The Bicycling World Co., 154 Nassau St., New York City.

The Dealers Who Pinned their Faith to National Bicycles

in 1906

were the men who did business on

"THE SUNNY SIDE OF EASY STREET"

They had the bicycles with which to quickly answer the "Show me" demand—the bicycles that are not like the common run of bicycles—the bicycles that have individuality and talking points (which are merit points also) and which when sold stay sold and sell others.

**If Your Business Needs a Tonic, Why
Not Try the National Agency for 1907?**

NATIONAL CYCLE MANUFACTURING COMPANY
BAY CITY, MICH., U. S. A.

DO YOU KNOW

that you have only to specify them to get

The Fisk Tires

on Pierce, Columbia, National, Snell, Racycle, Iver-Johnson or
Reading Standard Wheels?

Our reputation for UNIFORM QUALITY, year after year, has induced these high-grade factories to carry a stock of Fisks. Our policy spells PROGRESS; in spite of their past high standard, Fisk Tires for 1907 will excel their predecessors. They will be the very best that years of experience, intelligent workmanship, and money can produce.

THE FISK RUBBER CO., Chicopee Falls, Mass.

Boston
Buffalo
Denver

Springfield
Cleveland
Minneapolis

New York
Detroit
Seattle

Philadelphia
Kansas City
San Francisco

Atlanta
St. Louis
Los Angeles

Chicago
Montreal

THE BICYCLING WORLD and MOTORCYCLE REVIEW

FOUNDED 1877

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Change of advertisements is not guaranteed unless copy therefor is in hand on MONDAY preceding the date of publication.

Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should Address us at P. O. Box 649.

NEW YORK, FEBRUARY 16, 1907.

...“Above all, don't forget the Bicycling World. I would be lost without it.”—W. C. Hofen, San Francisco, Cal.

Getting Ready For Spring.

Spring house cleaning, with spring's indications as yet confined to the uncut pages of the Almanac, seems hardly a timely theme for discussion. Yet only by the early recognition of its advantages may its rewards be gathered in. And nothing in the whole year's work of the bicycle dealer and repairman better serves his best ends or better stimulates him to newer and better efforts in his business than this same annual “cleaning-up spell.”

What man with the memories of his youth still fresh and green in his mind can fail to recall the terrors of that annual scrub-fest when the entire household was turned topsy turvy, and everything within and without from cellar floor to garret roof subjected to the most searching sweeping and scouring and dusting imaginable; nor the sense of painful neatness and Sabbath propriety which followed the siege; nor yet the period during which muddy shoes were left outside in the woodshed, and not so much as a speck of Mother Earth's own self per-

mitted to pass the threshold of the establishment. Despite its tortures for the small boy, it had its value both in tuning up the house and its inhabitants for the work and play of the summer months to come. Something in the cleanliness and well-ordered decency seemed to stimulate even the rascally youngster to a sense of self-respect and a desire to do thoroughly and well whatever was given him to do.

Just in the same way the overhauling and re-arranging of the affairs of the bicycle dealer and repairman must contribute not simply to a better capacity for handling the work, but also effect a psychological renovation from which a newer and better ambition to do and do well must result. True enough, the good mechanic is he who is able to perform his work with the aid of but indifferent tools or, in fact, no tools at all. Yet is it equally true that the quality of his work depends quite as much upon his equipment as upon the actual skill of hand which he may happen to possess. And however good that equipment may be, long service under conditions of hurry and worry must serve to get it more or less out of good condition. Dull tools, strayed and stolen sundries, rusty accumulations of parts of old and new in the shop; shopworn and dirty stock, dusty shelves, scarred paint and dented woodwork in the store, tell their tales of use and abuse, and both places need mending at least once a year. The bigger the business and the busier the man who runs it, the greater the need of neatness all the time, and, because of the difficulty of keeping tidy all the time, the greater the need of the systematic campaign of spring cleaning.

Spring cleaning is better than fall cleaning because the spirit of the new season, rather than the weariness of the old is upon the worker, and because the expected advent of the new stock and the sprucing up which it induces naturally stimulates the desire for a general refitting of the entire plant. Just at this time, when business is particularly dull, when the fall and early winter overhauling of machines has been completed and no new work is at hand, it is particularly fitting that the repairman should take account of stock, eliminate all dead and useless material, and prepare for the new season. Similarly in the store, dusting up and brushing up, will reveal plenty of opportunity for improvement in one way or another, and besides will induce that clean and wholesome feeling which

from the period of short pants and sour apples up to full maturity and even old age, invariably brings with it a desire to make things hum.

With his “house in order,” the enterprising dealer will realize that this is the season in which to suggest to his customers, and to everyone else, by letter or otherwise, that there is no more opportune time for the annual overhauling of old bicycles and for fitting them with new tires, new saddles, coaster brakes and the like. On his part, the shrewd rider will appreciate that this is the moment when such work is most likely to be well and thoroughly done. Six weeks hence, the “overhauling” rush will begin and the dealer and repairman will have his hands too full to give special attention to any job.

The possibilities of a junior championship or a public school championship, the creation of which by the N. C. A. was suggested by the Bicycling World, is well shown by the result of the “Tout-Petit” race recently held in Paris. The event was restricted to riders under 17 years of age and attracted a field of 375 starters. The talk, interest and enthusiasm that a championship of the sort may arouse is of almost incalculable value. It will be in the nature of an infusion of new blood. The N. C. A. will miss a rare opportunity if it fails to make the most of the idea. It will help the organization not less than it will help the cause of cycling itself.

Among other things, the bill now pending in the Pennsylvania legislature provides that dealers in automobiles and motorcycles shall not only pay a special fee of \$5, but shall wear the “receipt”—a large badge—on their coats when operating their machines. This, in addition to the display of two big five-inch tags on the machines themselves. Unless they desire to be mistaken for hired chauffeurs or traveling billboards it, therefore, behooves the dealers to quickly “get a move on” and let their legislative representatives hear from them in no uncertain language.

It is a regrettable truth that the average cycle dealer does not even begin to realize the tremendous importance of his show window. He is too prone to consider it chiefly a convenient storage place instead of a standing advertisement for which he pays a good price, but which is of no value if it is not made neat and attractive.

DAIMLER'S FIRST MOTORCYCLE

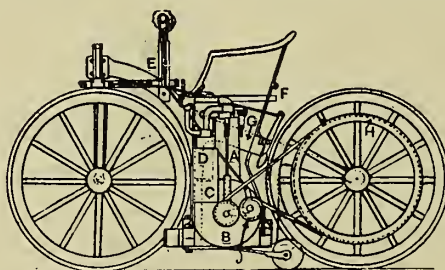
It Was a Queer Creation But Some of Its Features Are Still Retained in the Modern Machines.

While the various events which have gone to make up the history of the motorcycle in the chapters already written, have not been marked with any very significant strides, yet it is commonly conceded that the machine of to-day is such a vast improvement over the early attempts at adapting the motor in one form or another to the bicycle, that there is little or no comparison between them. Quite to the contrary, the first gasoline motorcycle of which there is authentic record, seems to have embodied quite all the salient features of the present day types, and with the trifling exception of the carburetter and ignition devices, as well as the use of wood instead of metal wheels, followed the same principles as are now laid down on the draughting boards, in the modern shops. Nevertheless in appearances, it was quite at variance with the 1907 models.

What in all probability was the first motor bicycle embodying the gasoline motor was the product of Gottlieb Daimler, then manager of the Otto gas engine works in Germany, and since called the "Father of the Automobile." Daimler, although he is not entitled to that appellation, still proved a very good nurse for an idea which had been mouldering for many years without gaining much ground, and, finally, through his efforts at motorcycle construction, came to build the first automobile which was worthy of the name, and later many others of better and better quality. Like nearly all other first attempts, the first motorcycle was merely an adaptation of the gasoline motor to the then popular boneshaker or hobby horse. In other words, it embodied a vertical motor supported between two wheels of equal diameter, the front member of which was guided by a tiller. Belt drive was employed, and there were no pedals. Considering the accompanying illustration, it will be seen that although its appearance was totally at variance with that of the modern types, as already indicated, its arrangement was not unlike that yet employed. The engine with its cylinder "A" and crank case "B", was mounted low in the frame, so that the centre of gravity of the machine was well down toward the base line. The carburetter "O", was of the ancient surface type, then known as the "bubbler," and the motor exhaust was led out through the muffler "O" to the air from the ports "F," just below the seat. By means of an idler pulley "J," which was worked from "E," the power could be thrown on or off and could in some measure be regulated as well. Throwing the lever to its extreme position also

applied a brake to the rear wheel at the point "G." The wheels were 28 inches in diameter, and the wheel base was 40 inches. The exact date of manufacture of this purely experimental mount is not known, but there is no question of its having been sometime during the year 1886, or more than twenty years ago.

As to the points of similarity or dissimilarity between the old and the new motorcycle in construction, it will be observed that the form of bucket seat employed, while not an Americanism, is used not a little abroad, while the spring mounting which it embodied, is a universal feature with all types. The frame, also, closely resembles certain patterns still in use abroad, although the steering is different at the present time. The difference, however,



is not so material as might at first be imagined, since it consists essentially of the addition of a second tiller, to form the double handle bar. The wheel sizes are normal to-day, the length of base is by no means unusual with some types. The position of the motor, is one almost universally standard, at least with the single cylinder types, and the belt drive to the rear wheel, together with the jockey pulley to keep it taught, also is as modern now as it was then.

Only in the engine is the chief difference to be found. This, in addition to the use of the surface carburetter and the hot tube ignition, employed a governor, which, when in action, prevented the exhaust valve from opening, and in still other ways was quite different from the present forms, although working upon the true four-cycle principle. Instead of drawing in the gas directly from the carburetter, the cylinder intake was led through the crank case where the mixing of the components of the combustible charge was completed. Thus the enclosed crank case figured very much as it does in the modern two-cycle motor. The cycle of the cylinder itself, was, however, identically the same as it is to this day. The muffler was raised to a point directly beneath the rider's seat, to be sure, and other points of minor difference existed, but in the main, it was very similar as a whole to the present types, except in the matters of wheel and frame construction.

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CONCERNING THE AMMETER

Useful Little Instrument That Too Many Motorcyclists Ignore—Some of the Troubles it Saves.

If there is any one article which above all or nearly all others should be included in the kit of the motorcyclist, it is the pocket ammeter. It is a small and handy little device, not expensive to buy nor troublesome to carry; yet it may be made to save much shoe leather or strenuous pedalling and more anxious half hours of "fiddling" with the carburetter and commutator and plugs than a whole library of books, or twenty pounds of spare parts. Despite the fact, it is astonishing how few riders are possessed of the precious little instrument. Although he always makes sure that he has enough gasoline, the average motorcyclist rarely thinks of testing his battery to discover whether he has sufficient electricity. He usually waits until the motor begins to "skip" and appears then to count on borrowing the all important ammeter from the "other fellow" in time of such need, and too often the "other fellow" is not in evidence when the need is most acute. The exasperated motorcyclist who expressed his machine from Denver to the Eastern factory only to be told that its battery was dead was not an isolated case.

Most of the ills of the motor, including those of ignition circuits, can be discovered by a series of simple tests and without the aid of added equipment. But the condition of the batteries, although it may be judged more or less closely by the nature of the spark delivered at the plug and commutator, is always more or less a mystery unless its age and past performances are known; and, even then, without the ammeter its vigor may fall into question occasionally. When a battery falls below 4 or 5 amperes, its "dying gasps" cause queer spasms. The sparking may continue one second or one hour, or may hit and miss repeatedly, only to run regularly again; or there may be no spark or but an occasional one and yet the shock at the plug terminal will be strong enough to be so unpleasantly felt as to suggest that a "leak" exists in the wiring.

With the aid of the battery tester, however, the amount of current available for sparking can be always determined in an instant of time, and with even less trouble than is required in measuring the depth of fuel in the tank. As a matter of fact, its record is no less important than that, although the fact is seldom recognized and when such instruments as the Eldredge, for instance, are to be had for such a low price as \$3.50, there is small excuse for the motorcyclist who suffers the "slings and arrows" of an expiring battery.

N. C. A. SOUNDS THE CYCLING CLUBS

Asks for an Expression of Opinion Regarding Road Race Control—Amateur Ranks to Be Purged.

Whether the National Cycling Association will take upon itself the burden of controlling the sport of road racing in this country will be decided at the annual meeting of that organization, which is now on the calendar for the last day of this month, the 28th. The annual meeting should have been held on Thursday of this week but for various reasons was postponed a fortnight.

One of the reasons for the postponement was that the officials of the National Cycling Association desired to obtain an expression from the clubs, whether they desired the N. C. A. to take up the work or not. Accordingly Chairman Kelsey of the Board of Control this week sent out this letter to the clubs:

"A request has been made by a number of bicycle clubs throughout the country that the National Cycling Association assume control of bicycle road racing, and formulate rules for its government in harmony with existing conditions relative to the control now exercised by the National Cycling Association over track racing.

"Should a pronounced demand be made for the National Cycling Association to take charge of road racing it is probable that the matter will be acted favorably upon at the annual meeting of the Association in New York City, February 28, 1907.

"Will you kindly advise me at the earliest possible moment of the sentiment of your organization in regard to the matter, and if it can be so arranged, would prefer an official expression of the club you represent, either affirmatively or negatively."

The need of such road race control is too well known to reiterate the fact here. There is no doubt but that the clubs will, at least the majority of those that count for anything, lend their support by joining the association and, once the project is safely launched, see to it that the rules are rigidly enforced.

It is likely that the forthcoming meeting will be an interesting one, or at least the results will be interesting to a lot of amateurs. It is common report that indisputable evidence against a big batch of so-called "simon pures" is in the hands of the Board of Control and that a number will be asked to turn professional seems very likely. As the Bicycling World sometime ago stated, much to the dislike of some members of the Cork Pullers Club, those who competed at Valley Stream for the entry fees, are said to be due for the "hook," and later reports have it that those amateurs who rode in Madison Square Garden during the week of the six-day race

will also be invited to cast their fortunes with the professionals. There is no denying the fact that the amateur field has been sadly neglected and needs a thorough weeding and it will not do the professional ranks any harm to be increased by the addition of younger riders.

The Officers of the Americas.

William J. Hampshire, of San Jose, Cal., who was elected second vice-president, is the only new national official of the Century Road Club of America, the annual election having resulted as follows:

National:

President, A. G. Armstrong, New York City, N. Y.

First Vice-President, F. H. Watrous, Chicago, Ill.



HAROLD E. GRUPE

Second Vice-President, Wm. J. Hampshire, San Jose, Cal.

Secretary, Fred E. Mommer, New York City, N. Y.

Treasurer, Harry Early, Bayonne, N. J.

Division:

New York—Centurion, Harold E. Grupe, Brooklyn; secretary-treasurer, Ernest G. Grupe, Brooklyn.

New Jersey—Centurion, Andrew Kinloch, Paterson; secretary-treasurer, Benjamin Evesson, Jersey City.

Massachusetts—Centurion, Fred I. Perreault, Malden; secretary-treasurer, William J. Shea, Dorchester.

Illinois—Centurion, Andrew Clausen, Chicago; secretary-treasurer, Arnold J. Prennen, Chicago.

Walthour Goes Abroad Again.

Robert J. Walthour, Atlanta, Ga., has sailed for Europe, but this time without a "sure thing" contract in his pocket, relying upon the generosity of continental track managers to give him match races. He sailed from New York this week and will go to Paris first and then to Dresden if he can get a race for March 31st.

FOR RELIEF IN PENNSYLVANIA

F. A. M. Officials Secure the Services of a Former L. A. W. Leader—Much Hard Work is Necessary.

As a result of the conference held in Philadelphia on Tuesday last between R. G. Betts, president of the F. A. M., Dr. S. D. Bashore, the F. A. M. State Representative, and George H. Lokes, the Pennsylvania's member of the F. A. M. Legal Action Committee, Attorney Samuel A. Boyle, of Philadelphia, has been engaged to assist the campaign that is being waged to have motorcycles relieved from the burdens of the onerous automobile bill that is pending in the Pennsylvania legislature. Mr. Boyle was a chief consul of the L. A. W. for many years and has also served his city in the role of assistant district attorney.

The automobile people who in order to obtain a speed limit of 30 miles an hour, have sacrificed nearly everything else, have played their cards well and if the motorcyclists are successful in obtaining relief of any sort it will be due only to the hardest sort of work. The bill is now in the hands of the Committee on Municipal Corporations. Aside from the terrific and scarcely desirable pace which it will prevent, the chief benefit of the act, if it passes, will accrue to non-residents. At present they must pay the \$3 fee to even enter the State; the pending bill, however, recognizes the licenses of other States for a period of ten days.

Whitelock and Delling Divide Honors.

W. W. Whitelock and Ed Delling shared honors in the races at the 74th Regiment Armory at Buffalo, Saturday night last, 9th inst., Whitelock taking the one mile open and Delling the two mile handicap, from scratch. Fast time was made in both the races. The summaries:

One mile open—Won by W. W. Whitelock; second, Fred Schudt; third, J. N. Tanner. Time, 2:18. Also ran—Adam Fischer, Edward Delling, R. J. Hoover, William Bauman and Al Mercer.

Two mile handicap—Won by Edward Delling (scratch); second, R. J. Hoover (65 yards); third, J. N. Tanner (scratch); Time, 4:41. Also ran—J. B. Devine, Edward Arenz, George Schell, Howard J. Young, Fred Schudt and Adam Fischer.

May Be Lamps for All in Massachusetts.

There are good prospects that bicycles, carriages and all other vehicles, will be—in common with motorcycles and motor cars—required to carry lamps, and display lights after nightfall in Massachusetts. A bill to that effect is pending in the legislature and at the public hearing this week no one appeared to oppose it.

McFARLAND STRIKES HIS GAIT

Shows His Heels to Frenchmen for First Time This Trip—Bedell's Poor Showing—Jacquelin's Defeat.

Floyd McFarland showed the Parisians how the real "Long Mac" can ride a bicycle, at the Velodrome D'Hiver, Paris, on Sunday, 3d inst., when he defeated Vanoni, the French-Swiss-Italian-American, and Cornet, both notable middle-distance pluggers, in a 30-kilometre race behind human tandem pace. This was the first race the American had won since he has been abroad

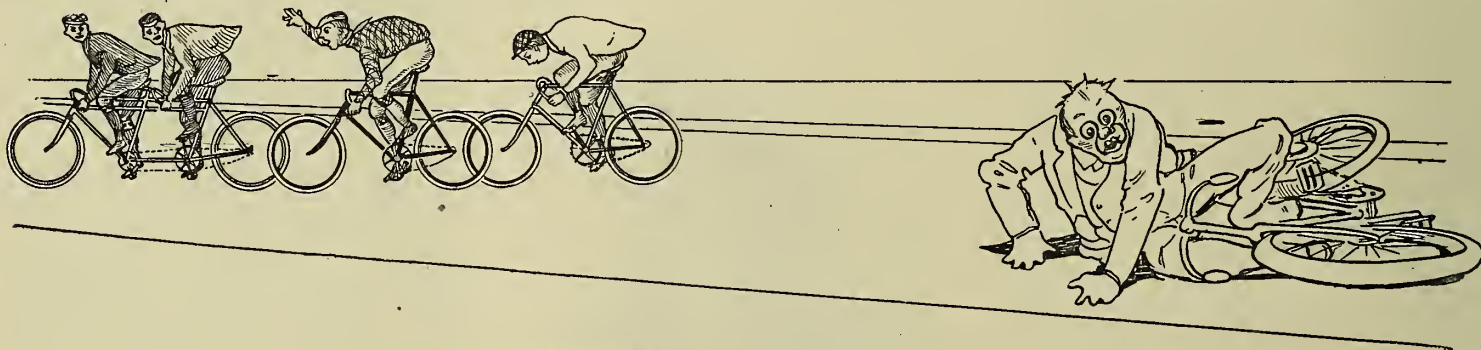
English professional, qualified, but was way outclassed in the final.

One of the races to which a great deal of interest was attached was the match between Jacquelin and Poulain inasmuch as it marked the retirement of the old champion, and the people wanted to see how the old would stand up against the new. Well, they saw, for the old favorite had as much chance of beating Poulain as a novice would have in trouncing Lawson or Kramer. In the first heat Poulain was content to study his adversary and measure his strength, winning easily after leading all the way in a slow race. In the second heat the veteran was lost. He let at the start and tried all kinds of jockeying

BOSTON'S "SIX-DAY" POSTPONED

To be on Bigger Scale Than Planned at First—More Time For Training—The Teams.

Boston's projected "six day" race has been postponed one week to allow the riders an additional week in which to train. Therefore, it will be held during the week of February 25th to March 2nd. It will be on a larger scale than was first intended, and the competitors will ride ten hours each day, which will make the affair more than play and worth something to the win-



THE FACE THAT PUT HIM DOWN AND OUT

this time, and naturally his supporters were much gratified.

The race began badly, a false start being caused by the breaking of a chain on one of the tandems. As soon as the trio got started, Cornet assumed the lead and held it until the trainers came out with something to drink, for when Cornet reached for his cup he slowed up and lost his pace, which resulted in a loss of about 150 yards before he could get his stride again. Then the Frenchman made a splendid ride from the rear and in two miles had regained his fellows. Instead of being content with his position Cornet tried to pass MacFarland and Vanoni, so that a little later when they started to unwind as Cornet got a drink, he was tired and lost 100 yards. Ten kilometres was ridden in 12:03 2-5, the record being by Cadolle in 11:42. The time for 20 kilometres was 24:11 4-5. As the finish approached, Cornet, who had gotten up again, attempted to go by McFarland, but the old campaigner increased his pace and Cornet was left in the ruck, Vanoni even passing him in the last few yards. McFarland won by a half lap in 36:26 4-5, and Cornet was two lengths back of Vanoni at the finish.

John Bedell made his debut in a 1,000 metre sprint race called the "Prix E. Bald," but the Newarker seemed hopelessly outclassed even with Paris's third-raters, and Deschamps shut him out in the heat. The race was won by Dupre, who got home a length ahead of VandenBorn. Benyon, the

tricks, but Poulain was too clever for him, and, while Jacquelin was ambling along on the top of the banking, Poulain jumped and was five lengths away before Jacquelin awoke to the fact. Poulain sat up at 1,000 metres under the impression that it was the finish, but although it was only half the distance he beat Jacquelin very easily by three lengths.

Paul Guignard had little difficulty in winning the 50 kilometer motorpaced race. Contentet and Robl were his opponents and Contentet finished two laps to the bad. Robl was six laps further back. Time, 37:47.

L. A. W. Nominees For Assembly.

These are the nominations made for the L. A. W. National Assembly:

Rhode Island: John H. Barrett, Fred. A. Bliss, Robert A. Kendall, Brooks Sander-son; California: Chas. K. Alley; Connecticut: Fred. B. King, A. G. Fisher, L. P. Chase; D. C.: J. M. Pickens; Illinois: L. L. Buchanan, C. M. Fairchild, M. X. Chuse, Jr.; Indiana, L. M. Wainwright; Iowa, E. F. Carter; Kentucky, O. W. Lawson; Maine, C. W. Small; Maryland, H. V. Casey; Michigan, W. M. Perett; Minneapolis, M. R. Brock; Missouri, George Lang, Jr.; New Hampshire, E. G. Whitney; New Jersey, W. H. Huff, R. H. Aaronson, L. H. Porter, Robert Gentle, H. E. Deats; Ohio, H. C. G. Ellard, Fred T. Sholes, R. G. Knight; Texas, E. W. Hope; West Virginia, B. D. Gibson; Wisconsin, W. H. Field; Foreign, A. T. Lane, Montreal.

ners.

Hugh MacLean, of Chelsea, who has the arrangements in hand, was in New York this week and while here signed Joe Fogler, E. F. Root, Walter Bardgett, Floyd Krebs and Charles Schlee. A special five lap track is now being built in the Park Square skating rink, Boston, where the race will be held, and a card of sprint and paced races on Saturday night, the 23d, will form the "curtain-raiser." The following teams, which may be augmented by one or two Boston couples, are assured: Joe Fogler, Brooklyn, and Walter Bardgett, Buffalo; Hugh MacLean, Chelsea, and E. F. Root, New York City; James F. Moran, Chelsea, and Matt Downey, Roslindale, Mass.; Charles Schlee, Vailsburg, and Edward Rupprecht, Newark; Floyd Krebs, Newark, and A. W. MacDonald, Somerville, Mass.; P. F. Logan, South Boston, and Louis Mettling, Jamaica Plains, Mass.; and Elmer J. Collins, Lynn, Mass., and J. B. Coffey, South Boston.

The twelfth annual Paris-Roubaix, the first of the notable long distance French road races will be run on March 31st, and already several cracks have signified their intention of entering, among them being Lucien Petit-Breton, Louis Trousselier, Marcel Cadolle, Leon and Emile Georget, Passerieu and others. The seven cash prizes are apportioned as follows: \$200, \$100, \$60, \$40, \$20, \$20, \$20. Emile Georget will wear the cabalistic figure "13."

HOLT BOUND IN MORROCO

**American Globe-Trotter Reaches Tangiers
But Raisuli Prevents Progress—City
Provides Interesting Sights.**

Tangiers, Morocco—It's a long jump from London to Tangiers, and I speedily found that bicycles in Morocco are almost as much out of place as they would be in the golden streets of Valhalla, although

wheel, which, by the way, costs me a dollar a day in Spanish money, which is a trifle less than American—and rode along the beach. It is a fine crescent-shaped stretch of hard sand and I enjoyed the spin greatly while it lasted. This wasn't very long, however, as in a few moments I had reached the point beyond which travel is, at the present time forbidden, and was stopped by two guards of the Sultan's army. They jeered at me in Arabic for awhile until I said "No Comprado," where-

Sultan is making strenuous efforts to get hold of him. Not long ago Raisuli's stronghold at Zinat—a hill which I can see from the window in my hotel—was destroyed by the Sultan's troops, but Raisuli escaped. The principal reason why traveling is now so strictly prohibited is that Raisuli has followers scattered all over the hills about the city, and it believed that he would not be averse to securing an American, French or English captive, as with such an item he could bargain with the Sultan for his safety. As it now is, if Raisuli is caught, the Grand Socco, or great market, will see a Moorish execution, decapitation by the sword, and the head of the daring ex-governor and descendant of the Prophet will grace one of the Socco gates. With his capture, travel in Morocco will again be possible, and I am now investigating the possibility of a bicycle trip to Fez, about 180 miles from here, and thence to Morocco, several hundred more. It is possible that I will have to accompany a caravan if I can go at all.

Tangiers is an extremely interesting city—so very different from any thing one can imagine, that, although I have been here a week I still feel as though I were living in a dream. The photographs which I have taken for the readers of the World will show, in a measure, why I have this feeling, for are the figures in the pictures, any but those one would see in a dream? From my balcony I can look down upon the Grande Socco, where thousands of Arabs and negroes and Jews carry on their trade. There I can see camels being laden for a desert journey; little donkeys carrying three times their weight in merchandise; native water carriers with their black pig-skins full of water, on their backs; Moorish women, covered all but their eyes with their "haiks;" soldiers of the Sultan in brown khaki uniforms, short baggy trousers, bare legs and red Fez caps; long bearded Jews; black men from the mountains; half nude children playing in the dirt; "holy men or Saints," too frequently drunk, walking about with stately step, and clad in gowns of bright green and yellow; dashing Arabs on beautiful horses, with scarlet saddle blanket, long gun and clanking dagger of hammered silver. Can you imagine a bicycle projected into that?

The city is very hilly, the streets are not more than ten feet wide, including sidewalks, where there happen to be any, and in many places not over four feet wide. There are no street corners, for the streets do not intersect, but instead are like a maze. Through these narrow streets, the donkeys travel first, with their big baskets on each side, and their drivers crying "Ba-lack," "Ba-lack!" ("Mind out!" "Mind out!") What little room is left is allotted to the pedestrians, and the one who walks must keep his eyes open or he will be knocked down by some heavily laden donkey, or run over by a soldier on horseback.

GEORGE E. HOLT.



ON THE BEACH AT TANGIERS

the cycling there would probably be better, if the streets were kept in average repair. There are several reasons why cycling is not largely indulged in in this country. One of them is that considerable expense and difficulty must be experienced to get a wheel to Tangier; another is that there is practically no place to ride it after it is here—that is, in the city, and a third reason is, that at the present time, owing to the fact that the bandit Raisuli has created a hornet's nest outside of Tangiers, one may not leave the city.

When I came to prepare to leave London for Tangiers, I found out many things about bicycles and bicycling—some of them will undoubtedly interest other cyclists who desire to visit the land of the Moors. I found that there was a charge of \$2.50, made by the steamship companies, for taking a medium sized wheel to Gibraltar—you cannot go direct to Tangier. In addition to this charge it is necessary to crate the wheel, for the steamship companies will not carry it otherwise, unless one is a carpenter as well as cyclist, this means somewhere near \$2.50 more. Then there is the charge for drayage to the railway station, the charge for carriage by railroad to the docks, the charges either for storage or drayage to hotel in Gibraltar, the charge for carriage by steamer to Tangier, which totals up to about \$10.00.

My cycling in Morocco has thus far not been extensive. Yesterday I got upon my

upon they jumped to the conclusion that I understood Spanish and started off in that tongue. After enjoying their vocabularical fireworks for awhile, I rode back



IN THE OUTSKIRTS OF THE CITY

to the city rather amused at the strict guard kept on Raisuli's account.

Raisuli—or Mulai Ammed ben Mohammed er-Raisuli, to give him his full title—is now in refuge with the Benim-Suau tribe, which is friendly to him, while the

ACROSS PORTO RICO ON A MOTOR BICYCLE

If there is any place in the whole wide world where a man cannot go on a motor-cycle, then that place can be reached only by means of a ladder or with the aid of a mountain burro, which is the mountainous equivalent of the municipal elevator. When first I came to Porto Rico, however, I was of a different opinion, and therefore considered it something of an achievement when I crossed the Island on my machine and came to Adjuntas. Indeed, I thought I was accomplishing something very much out of the ordinary. I was new to the country then, however, and have learned better things since. Among them is the proposition which limits the capacity of the motor-cycle.

I had arrived at San Juan one evening in September, and had spent some two days in getting used to things before I began to consider my next move. Then the search for gasoline, which, be it said in all truthfulness, is still going on, commenced. After knocking about blindly for a few hours, I discovered the office of the West India Oil Company, and with the pride of discovery strong in my bones entered and laid siege to half a case of the fuel, not to mention a gallon of good cylinder oil. Then I began to lay plans for my trip across to Adjuntas which may be fifty miles distant in the direct line of thought, but is much more every other way, especially when the ups and downs are taken into account.

First I had intended going by the way of the old military road which, if one may judge by the map, runs somewhat south to Aguas Buenas, sweeps easterly to Caguas, south again to Cayay, and then climbs due west to Aintonito and the summit of the volcanic mountain range which forms the main watershed and backbone of the island, only to drop again to Coamo on the other side, and Juan Diaz and Ponce. Ponce is to the south what San Juan is to the north—the centre of the local universe, but for my purposes, it was hardly desirable in that its people have not come to a realization of the benefits and advantages to be derived from the sale of gasoline. More than that it is a weary climb again right up over the backbone to Adjuntas, which means two climbs for the trip as against one by the route finally chosen. An American, God bless him, told me I had better take the train to Arecibo, which, he said, was a very nice ride along the level northern coast of the island, and cross from there directly by a decent road. And I took his advice. This way, the distance is 84 kilometres, while by the route originally proposed it would have been 130 kilometres, which means, since a kilo

is .6 of a mile, that I saved about thirty miles of level and a couple of miles of vertical riding, not to mention the saving in nervous energy effected by escaping not a few sharp corners perched well up in the fresh air. Moreover, by this route, the American told me I might make my destination on no more than a bucketful of "juice" which meant that my tank would hold enough for the entire journey. So I took his word.

Before I started I had to annex a native boy whom I took with me to the oil com-



NEW YORK BRANCH: 214-216 WEST 47TH ST.

pany's office to bring away my 5-gallon can of gasoline, which he toted upon his head, while I carried the oil. At the station, when my passage had been engaged and my luggage looked after, there was much doing before it was safely stowed away on the train. Under the impression that it was merely an exaggerated form of bicycle, one nigger laid hold of my motor-cycle with willing hands to put it into the baggage car. There is some little difference between it and the average American bicycle, however, and he soon called upon another for aid. The two wrestled with it for a time, and then called upon a third, who contributed more fine language than brawn, so that ultimately there were four of them sweating and swearing around the mount before it was set aboard and braced up. As soon as this ceremony was concluded, the train started.

This amiable little institution is dignified by the name of the American Railroad, although it formerly was under

French management, and may be yet, for all I know. At all events, it boasts the European triple passenger classification, which admirably suits the cast distinctions of the country and is conducive to mistakes in purchasing tickets, unless one knows enough Spanish to be profane. It is narrow gauge, and the cars, which are hardly more ample in their proportions than the old-fashioned horse cars, rattle along in a style which is decidedly interesting to the American used to more extensive railroading, provided only that it is not necessary to continue the diversion for too long a time. The service is pretty good, however, as service goes the world over, and the trains progress fairly well, especially on the down grades.

Reaching Arecibo, I filled my tanks, assisted by the kindly ministrations of an ancient darkey who procured for me a wire nail with which to puncture the top of my gasoline can, and afterward set the machine on its stand and proceeded to try out the motor. This, somewhat to my amazement, but infinitely more to the amazement of the two-score and eleven men and boys gathered about me, ran as well as it had before I left home, and that notwithstanding its journey across New York state, the 1,500-mile trip over the sea, and its rough handling by the diminutive railroad. When I had made sure that my equipment was in good order and the motor in fit shape I prepared to start and finally got away amid a chorus of "Adios" from the crowd, and much yelping from the sixty-nine dogs at hand, sixteen of which I narrowly escaped running over.

They say the highway cost upwards of \$2,000,000. Anyway it was as smooth as a floor and felt like velvet under the wheels. The motor ran splendidly, the air was clear, though far from cool, and the sun beat down like blazes. Ahead of me the mountains loomed awesome and towering. Indeed, as I opened the throttle and advanced the spark I was conscious of not a few misgivings as to whether I ever should be able to mount those steep slopes at least by engine power and persistence alone. For the time being, however, it was all very enjoyable, and I soon forgot my doubts in the majesty of the picture.

It is very much like the scenery of Colorado, this picture, and its details grow stronger and more pleasing as the perspective decreases and the hills and valleys become more and more distinct.

After leaving behind a desolate little clump of dwellings rejoicing under the name of Tarama, the road veers around with a kink or two to the shores of the Rio Grande de Arecibo, a good sized

stream which guides the traveler way up into the mountains. Apparently undecided as to which side is the better of the two for its purposes, the road zig zags back and forth across it, making no less than seven crossings before Utuado is reached.

The hill country is very fine, especially with the mountain backing. Up in the lower ranges of the peaks themselves, however, the tourist, and especially the motorcyclist, finds himself quite taken up with studying the impetuous curvature of the course. The grey setting is behind it all, though, and its effect seems to soften the nervous feeling and make the terrors of the pits and misty hollows less real.

Came first the problem and then the Utuado itself. The problem was to cross the river with no visible means of support and that without getting any wetter than was necessary. There was no bridge, and there were no signs of boat, ferry or ford, and the problem looked real until I stumbled upon a native. Some good American silver helped him find a way. He found a couple of other willing ones, and between them all we dug up a boat and managed to get across dry shod. Then came Utuado into which I swept with all the majesty of a circus parade and with no less excitement attending my reception. When I came to leave, I had no little difficulty in finding the way, and circled about until I caught a glimpse of each and every one of its three or four thousand inhabitants and had grown heartily tired of them all. Then I found it was simpler even than A B C. In other words, when you want to get out of Utuado, all you have to do is to turn around and retrace your steps. For there is but one entrance, and that is very easy to find after all.

After quitting Utuado, which I shall always remember because of the simplicity of its approaches, riding a kilometre or more, I came to the next crossing, and then it was plain that the river and I were not to part company until I had sampled all of the known methods of crossing a stream. The method given me this time was the somewhat novel one to the motorcyclist yet the aboriginal one of a solid log laid from bank to bank. I discoursed in several languages for a time before I saw the boy, or rather before he heard me, for once he had glimpsed my machine, he was not slow in drawing near, and then he pointed out the log, and helped me to worry the machine across. For maybe a couple of kilos after this, the grade pitched upward, and then it began to climb. Then there were maybe a dozen miles in which the grade was no less than 12 per cent. with never a level spot to break the monotony, so it seemed. The road is mostly cut out of the side of the mountains, shelf-like and toutous, and some of the turns are hair-raising to say the least.

A friend of mine from Ponce, once discovered their full meaning when he at-

tempted to take one at speed and felt his machine slip from under him as though it had been bewitched—and the road was dry at the time, too. But I had better luck. I was forced to cut out the motor and pedal part of the way, however, in order not to meet with his adventure, although at the time I hardly realized, so intent was I upon following the track, what might have been involved in a bad misgo.

There is a plateau well up the range, some thirty or forty kilos wide, and I had already settled myself to enjoy its advantages and rest my arms and eyes from the strain of the curves, when I noticed a rainstorm coming up. There are rainstorms and rainstorms, but the tropical variety is the most superlative in the whole category, as I soon learned. However, before it had begun to assert itself except in a premonitory way, I had found refuge in an old coffee mill on the far side of the river which was with me still. Again there was no bridge, nor was there even a log, but I had not been "hitting the high spots" for the past fifteen minutes only to be drenched in that fashion, so without standing on the order of things, I jumped in and waded across with the water nearly to my waist. Then I dove under an old shed, and there discovered an American wagon, upon which I perched myself to wait for the rain to cease.

Before I finally got away again, I had learned one thing about motors which perhaps I might have never learned in any other way, namely, that water does not agree with the commutator, and that when you have been mingling the two, it is better to sit down and wipe off the contact points before trying to mount than it is to pedal away on an up-grade in a hot climate. Ultimately, I adopted this course, though not until I had tested the disadvantages of pedalling and had got well warmed up. After this little difficulty had been settled matters were not so unpleasant as they had been, and it was only a short time before I was seated at the hotel of the padre and making my first acquaintance with the deadly routine of rice and beans, a twice-daily episode in Adjuntas life.

Twenty miles or so to the south, lay Ponce, and after I had rested and eaten of the rice and beans until I could eat no more, I essayed to make the distance. Two more fords of the same troublesome river were encountered at the very start, and then it was left behind for good and all, and the stiff ascent undertaken to the "Bandra" or upper plane, and more difficult than anything yet encountered. The road twisted and turned, and no less than eight sharp reverses had to be negotiated. Then, after perhaps six kilos of hard work the summit was attained. Three thousand feet above sea level, they say it is, and sixty miles from Arecibo. The descent

into Ponce is but fifteen miles long, and I made it in less than an hour, riding with my heart swelling up in my throat and my hands aching as they grasped the bars.

Once since, I came the same way, but in the opposite direction, and covered the distance in just one hour including the short descent to Adjuntas. But that is because you can make better time on the curves going up than you can going down—that is, unless you are careless about where you are going to land. In that event you can get part way down in almost no time at all. Only you are apt to lodge somewhere before you reach the bottom.

What I minded most, and do still, was the ox and mule teams. The dogs, though more plentiful, are not so bad, although they contrive to stir the blood most unpleasantly at times. But when you swing around a sharp bend and come smack upon a six or eight ox team, lumbering sleepily onward and keeping close to the inside of the road, and you have but three or four feet between the beef trust on the one hand and unlimited space on the other, the back of your neck begins to ache and you long for time to swear, but cannot because of your haste to get by. The pack mules and burros are not so bad although they, too, have an unpleasant habit of disregarding the rule of the road.

And so I got to Ponce, and was mightily pleased to be there, and felt that I was quite an adventurer, and that what I had seen and experienced would fill a big book and make good reading and that mountain climbing on a motorcycle was hazard-out work and performed successfully only by heroes. Also, I was glad I had not come the Aionito way, for then I should still have had the climb to Adjuntas in prospect, whereas now I knew something of what it would be like, and therefore had no fear. But all that was before I had come to know those same precipitous ledges they call roads, or had learned that they have a growing fascination for the rider in which there is little of the sense called fear.

G. W. PATTERSON.

New Yorkers Win Both Medals.

Motorcyclists apparently have not yet developed an "appetite" for long drawn out competitions. As a result the 1906 mileage and touring medals—both of gold—offered by the Federation of American Motorcyclists were practically gifts to the respective winners.

The touring medal has been awarded to F. W. Horenburger, of New York, who during 1906 motorcycled in 23 counties in six different States. The rules required that attested post cards be mailed from at least two points not less than 10 miles apart, in each county visited. The mileage medal was won by M. E. Toepel, also of New York, with a record of 3069½ miles. Several others started in the contests but failed to maintain their score sheets.

Tips on Care of the Show Windows.

No matter where the store is situated, care of the show windows pays. Anything that pays is worth thought. The show window question cannot be neglected. If a good window makes trade, a poor one drives it away. There is nothing negative about a window; it has an active influence one way or another. If you have not taken up window dressing as a regular feature of your business do it now, says B. A. Chambeau.

Change the window at least once a week, redecorating it and changing the subject. Beyond that time any display will lose its effect and become tiresome. However, in three months time it may be that the same display may be made. It will then have regained its edge, like a dull razor laid aside for a time. A system in dressing your windows and a rotation of displays is an actual economy. Have your ideas planned out weeks ahead. Keep a date book. In this way there will be no confusion, and when the display should be changed it will be done with definite purpose and idea.

If nothing else is done it is easy and of primary importance to keep the window glass clean and the show space neat and orderly. Be on the lookout lest any goods or advertising matter in the window, while appearing normal from inside the store, has

faded into unsightliness from the street side. Set aside the trimmings of a display for use at a future time. Gradually in this way a property outfit will be accumulated. Money spent on crepe paper, ribbons, artificial flowers and other trimmings aids is a good investment.

Perhaps the best way to realize the full value of a show window is to hire a few. That which we are accustomed to use daily has a tendency to seem of smaller account than it really is. The show window is of value in several ways; to admit light, as a place to display wares, as a power to draw custom into the store. It should not be forgotten, also, that the merchant is paying part of his rent for it all of the time. Never treat it lightly.

To polish your show windows, making them as clear as day, use the following paste, applying with a soft rag, and rubbing off with another soft, dry rag: Take of prepared chalk, nine ounces; white bole, one-half ounce; jeweler's rouge, one-half ounce; water, five ounces; alcohol, three ounces. Mix thoroughly.

Card board signs for use out of doors may be rendered water-proof by brushing over them with two successive coatings—allowing one to dry before the other is applied—of a mixture made of four parts of

slacked lime in three parts of skimmed milk, with a little alum added. A water-proof ink may be made by boiling together two ounces of shellac and two ounces of borax with sufficient water to make a solution, and then adding two ounces of acacia and sufficient lamp-black to give the desired color. The thickness of the ink is regulated by the amount of water used.

Another water-proof ink is made by dissolving together by gentle heat one ounce of bleached shellac, one-half ounce of Venice turpentine and two and a half ounces of oil of turpentine, afterward adding the color—powered indigo, lampblack, vermilion, and so forth.

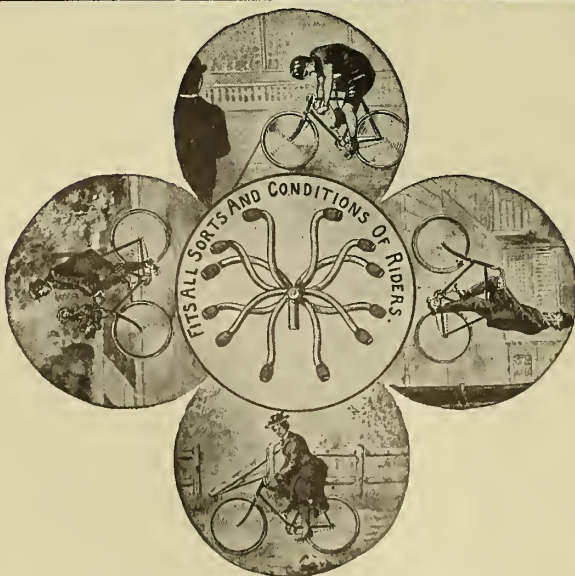
When metal letters come off the window, it is easy to cement them on again with a mixture of one part gum mastic, two parts litharge (lead), one part white lead, and three parts linseed oil. Melt together in a homogeneous mass and apply hot. The letters should also be heated to a temperature at least that of the cement.

Protecting Inner Tubes From Puncture.

A simple method of protecting the inner tube from punctures is to place a strip of heavy felt between the outer case and the inner tube. This felt should be wide enough to project beyond the tread of the tire. It should be cemented in the center.

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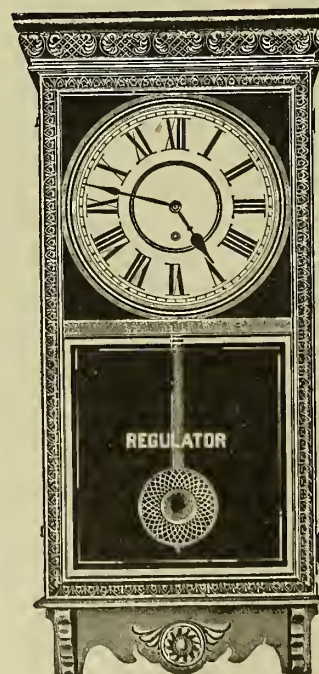


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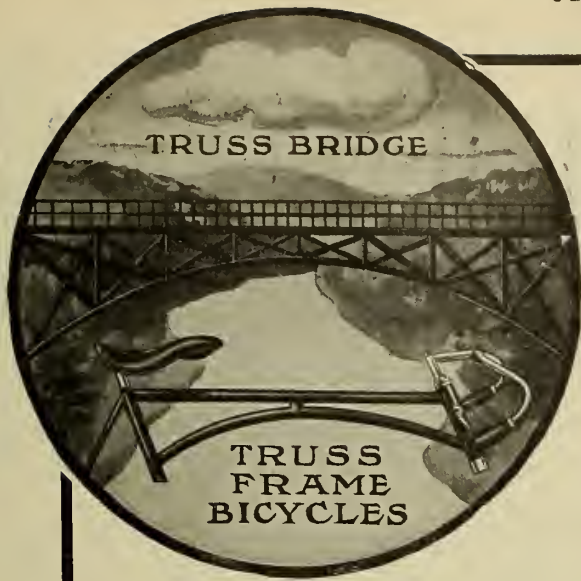
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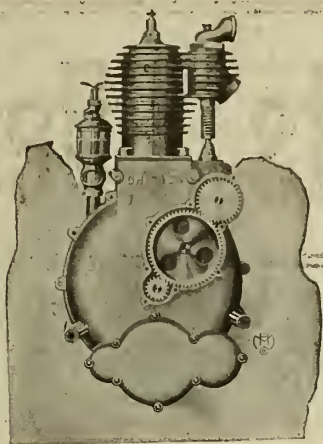
Last spring I sent to your firm for a circular descriptive of the Morrow Coaster Brake. I had already inquired into the merits of other brakes but as the Morrow looked best to me I purchased one. I used the brake on my bicycle almost every work day riding to and from work. On my country rides for recreation I traveled over some of the steepest hills in this section of Ohio, and I always found the Morrow Brake to give the very best of satisfaction. It never slips or binds and I consider it the most reliable and powerful on the market. Wishing you success for the coming season, I remain,

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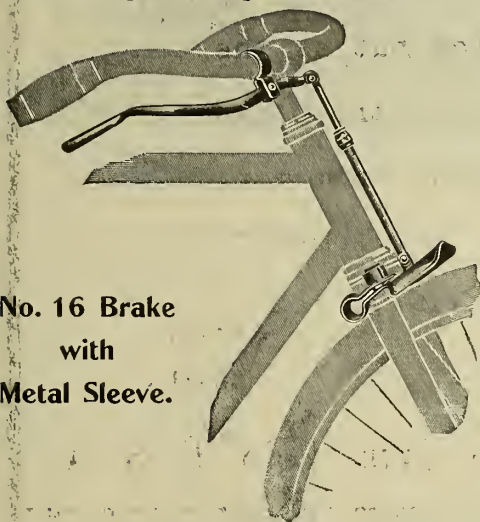
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THE BICYCLING WORLD CO.,
154 Nassau St., New York.

What Cycling Did For Wehman.

H. J. Wehman, secretary of the Federation of American Motorcyclists, had a fourth anniversary the other day—the anniversary of a desperate operation for appendicitis. His case was so bad that his life was despaired of; he was put under the influence of ether twenty-two times. In remarking the fourth "anniversary," Wehman let fall a strong testimonial to the benefits of the bicycle.

"I guess bicycle riding had a lot to do with saving my life," he remarked. "Despite my condition, I remember hearing the doctor ask my mother if I had indulged in athletics and I recall her reply: 'About the only thing of the sort he ever did was to ride the bicycle as if he was crazy!' 'It's a good thing he did so.' I heard the doctor say. 'He can thank the bicycle for giving him the heart and the lungs that are pulling him through.'"

When Caution is Necessary.

That caution is a good thing in passing an automobile from the rear, under some circumstances, was impressed on one rider in an unusual manner, and while he was unhurt, he got a scare that will last him a long time.

He was scorching on a good stretch of road, in New Jersey, and passed an automobile, of the runabout type, going perhaps 15 miles an hour.

Unfortunately the car obstructed the cyclists' view of a mudhole, and after passing, he turned into the centre of the road at such an angle that his wheel side-slipped in the mud, and threw him off, almost directly in front of the automobile.

A quick stop was luckily made by the driver, so quick, in fact, that he went over the dash of his car, damaging his clothes and anatomy considerably as a result.

Ellegaard a Thrifty Champion.

Thorwald Ellegaard, the Dane who has won the world's sprint championship four times, and who at present holds the title, is one who believes in taking a complete rest during the winter months. Ellegaard has been thrifty, and, as a result, he points with pride to his handsome villa at Frederiksborg, a village near Copenhagen, where he spends his winters, and of the esteem in which he is held by his fellow men. Ellegaard has been leading the simple life for the last three months, his daily routine being a walk after breakfast, followed by a good massage, then some exercise in the gymnasium, and a rest in the afternoon. The champion will begin training next month as he intends to try for the world's championship again this year, which will be held on the Parc des Princes, where he has won his most notable victories.

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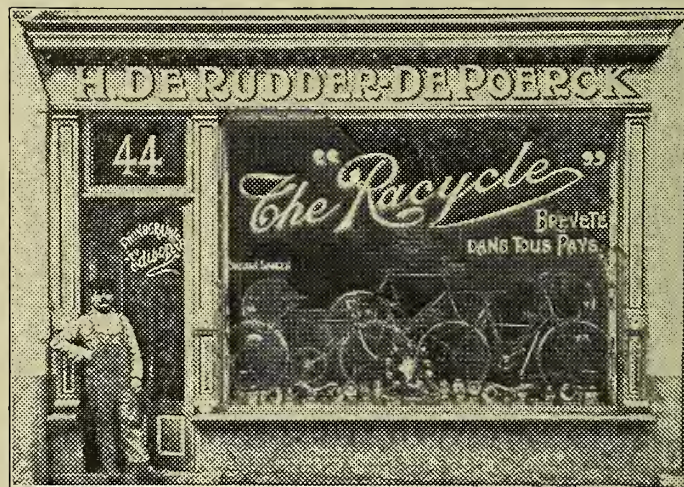
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Middletown, Ohio, U. S. A.

The Hudson
THE LEADING KNOWN BICYCLE

THAW

The Hudson
THE LEADING KNOWN BICYCLE

That's what we all want—but before it comes be sure you have a good stock of

HUDSON BICYCLES with D. & J. HANGERS

They Are Sellers

HUDSON MFG. COMPANY, Hudson, Mich.
DISTRIBUTORS

BAKER & HAMILTON, San Francisco, Calif.

SCOTT SUPPLY & TOOL CO., Denver, Colo.

NEW YORK SPORTING GOODS CO., New York, N. Y.

J. W. GRADY & CO.
Worcester, Mass.

ALEXANDER ELYEA CO.
Atlanta, Ga.

The Hudson
THE LEADING KNOWN BICYCLE

The Hudson
THE LEADING KNOWN BICYCLE

"WORLD" Cycles reached the top WHY?

Because our OUTPUT is larger than any one
FACTORY in the World

JOBGING WHEELS A SPECIALTY

Mr. Jobber and Dealer write for particulars

ARNOLD, SCHWINN & CO, 945-961 N. 43d Ave., Chicago, Ill.

THE BICYCLING WORLD and MOTORCYCLE REVIEW

FOUNDED 1877

Volume LIV.

New York, U. S. A., Saturday, February 23, 1907.

No. 23

SMALL PART BASIS OF BIG SUIT

Spoke Nipples Are the Subject of Contention in Manville vs. Excelsior Needle—Machinery in Court.

The United States court room at Hartford, Conn., this week had the appearance of a machine shop when Judge Platt heard the testimony in the suit of E. J. Manville Machine Company, of Waterbury, against the Excelsior Needle Company, of Torrington.

The action has to do with automatic machines used for the manufacture of the nipples for bicycle spokes and the parties to the suit set up the machinery in order to convince the court by ocular demonstration of the justice of their respective causes.

The plaintiff company asks for an injunction, alleging that the Excelsior Needle Company is infringing certain letters patent on the machine granted to Andrew C. Campbell, of Waterbury. Edmund Wetmore and O. W. Jeffrey, of New York, are lawyers for the E. J. Manville Company, and C. L. Sturtevant, of Washington, is lawyer for the Excelsior Needle Company. Harry R. Williams, of Hartford, is patent expert in the case for the E. J. Manville Company, and Arthur W. Brown, of Washington, is patent expert for the Excelsior Needle Company.

The case has been in court about two years and testimony has been taken in different parts of the United States.

Biggest of Enameling Ovens.

What is believed to be the largest cycle enamelling oven ever constructed has been installed in the plant of Arnold, Schwinn & Co., Chicago; it has a capacity for 500 frames. It does not displace any of the old ovens but is used in addition thereto. This enlargement is one of the signs of the

prosperity which the firm has enjoyed. Mr. Schwinn reports that 1906 was one of the best years in the firm's history and that orders in hand for 1907 indicate an even better one. The capacity of the plant is now 500 bicycles per day.

Surre Moves Up in Corbin's.

William J. Surre, who has worked his way up the Corbin ladder, was elected secretary of the big Corbin Screw Corporation and also a member of the board of directors at the annual meeting last week. Previously, Theodore E. Smith had filed the offices of both secretary and treasurer but relinquished the former in order that Surre might "move up one." Surre had been "tried out" for a couple of years as assistant secretary and his promotion proves that he had "made good." Charles Glover to whom so much of the success of the corporation is due, was, of course, re-elected president, indeed, the shift in the secretaryship was the only change made, the officers being as follows: Charles Glover, president; Clarence A. Earl, vice-president; Theodore E. Smith, treasurer; William J. Surre, secretary; directors—Philip Corbin, Charles M. Jarvis, Charles Glover, Howard S. Hart, Theodore E. Smith, Charles H. Parsons, Benjamin A. Hawley, Clarence A. Earl, W. J. Surre.

Sherman Returns to Hendee.

As nearly everyone expected would be the case, George W. Sherman has returned to his old love, the Indian motorcycle. He takes up again with the Hendee Mfg. Co. on Monday, when he will assume the duties of "traveling ambassador."

The Retail Record.

Austin, Minn.—Archie Moreland, sold out to B. F. King.

Fond du Lac, Wis.—E. A. Aismont, new store at 78 South Macy street.

Youngstown, Ohio.—Reese & Seaborn, sold out to H. E. Woodworth.

EXTENDED TO MOTORCYCLES

Midgley's Invention is Not to be for Automobiles Alone—A Novel Departure in Non-Skids.

Gradually, some of the many conveniences devised for automobilists are being placed within the reach of motorcyclists. The very latest contrivance of the sort and one which cannot well fail to meet with a full measure of appreciation is the Midgley wire grip tread which the G & J Tire Co., Indianapolis, are making ready to apply to their motorcycle tires.

When, several months since and after a year's test on the road, this tread was announced as ready for the market, it created quite a flutter in the automobile world. It is the invention of none less than Thomas Midgley, the general consulting engineer of the Rubber Goods Mfg. Co., and differs radically from any other non-skid that is available. In brief, it consists of several parallel rows of endless helical coiled spring wire embedded well into the tread of the tire. Being incorporated into the material of the tire during its manufacture, the portion of each coil which lies beneath the surfact of the tread is a fixture, the process of vulcanizing firmly attaching the rubber to it. The tread has the unusual virtue of improving with age. If the contact with the road should wear away the outer loops of the coils, they become a series of inverted staples, the points of which, if anything, more firmly grip the road and make skidding practically impossible; it has been figured that during the revolution of a wheel there never is less than 200 of these steel fingers gripping the ground.

The tires in which these treads are incorporated differ little in appearance from the ordinary G & J tire; they look merely as if they had been finished with several rows of fine "embroidery."

ENERGETIC EMERSON, "B. D."

Sets a Pace That Others Might Follow
With Profit—Some of His Unique
Advertising Stunts.

There is a live chap down in San Antonio, Texas, of the name E. G. Emerson, who knows a thing or two of the value of publicity. He also knows a few things about repairing bicycles, which apparently entitles him to the degree of "B. D."—"Bicycle Doctor," and that he is entitled to it is explained by his letter heads which state, "Eight diplomas from the San Antonio Fair Association to prove I am the Leading Bicycle Doctor in the State."

Emerson's uniqueness extends to his bill head, which is so different from the average bicycle repairman's billhead as to be worthy of mention. It is a duplicate of a physician's bill head except that the degree "B. D." instead of "M. D." follows the name. It gives evidence that Emerson finds plenty of work to do and that this particular "doctor" has little time to himself for his office hours are from "7:00 to 12:00 a. m. and 12:00 to 7:00 p. m."

Emerson's advertising methods are characteristic of the man himself, and reflect his earnestness and enthusiasm. He believes in catching the eye of the public first and then telling his story, which, of course, is bicycles.

"Emerson was noted in Boston as an essayist. Emerson is equally as famous in San Antonio as a Bicycle Doctor, also from the fact that he is sole agent for the two best makes of bicycles known to modern manufacturers—the Tribune and the Cleveland. Your prescriptions are promptly filled and your bicycle troubles promptly cured, and that while you wait. A complete and 'up to now' line of Bicycle Sundries * * * comprise the stock of this modern store." There you have the whole story in a paragraph.

This live dealer's scheme is to interest the public and get it to read his advertisements in the local papers of which the above paragraph was a sample, is nothing new, but it turns the trick to a nicety. 'Tis nothing but a rebus contest, with \$10 in gold to the person that offers the neatest and best solution. The answer to the last one Emerson conducted was "Flint," a city in Michigan, and he received about 500 answers, the majority of which took the form of verse, which is pretty conclusive evidence that the San Antonians are interested in "Doc" Emerson and his work, isn't it?

The following was selected as the best answer from among the five hundred and although the metre is not exactly even in all places and some of the rhymes are a bit forced, it has a good ring to it:

If you'd have a panacea
Which to great and small is dear,
Which will save you many a tear and many
a sigh,
Get a bicycle to-morrow,
Better buy, don't try to borrow,
And away with grief and sorrow as you fly!

Chorus:

Oh the wheel is like a fairy,
Ever swift and light and airy,
And your burdens it will carry, every one;
Put your foot upon the peddle,
There'll be not a soul to meddle,
For you're off just like a bullet from a gun.

When the wheel was first invented,
Car, and cabmen, quite contented,
Oft a sneer and taunt commented, "They're
no go!"
But their rash words they've repented,
And their lost fares oft lamented,
And they're now almost demented with
their woe.

If the girl who suits your notion
Can be found this side the ocean
And a thrill of deep devotion you should
feel,
Don't with modes of travel worry,
Keep your mind from fuss and flurry,
You can reach her in a hurry on a wheel.

There's a "Doctor" in our city,
Who is jolly, wise and witty,
And his Specialty's Diseases of the Wheel;
Every bike in bad condition
Should consult this great physician,
For his treatment very good will make
them feel.

He has wheels in stock to sell,
And be sure he'll treat you well;
The Tribune and the Cleveland are his
pride,
For they're swift and light and sure,
And your troubles they will cure,
If you purchase one from "Doc." and take
a ride.

Now in closing let me hint
That his promise is like FLINT—
And reliable, unbreakable, and true;
If you'll call and see his stock,
You will say "Three cheers for Doc!"
He'll be found at 2-2-4 Main Avenue.

Motor Bicycles on the Coast.

Although little or nothing is heard here of motorcycle business and "doings" in the northwest that fact does not indicate that there is not an abundance of activity on the north Pacific coast. Spokane is one of the centres of this activity and the coming season promises to be a lively one according to advices from that section of the country. Evidence of the fact that motorcycles have secured a good foothold in Spokane is found in the announcement that J. D. Alexander, proprietor of a bicycle store in that city, has opened an exclusive motorcycle establishment at 813 Main avenue, and has ordered what will be the largest shipment of motorcycles ever consigned to Spokane.

"I have never seen as much enthusiasm expressed in any kind of vehicle since the bicycle craze, as there has been among the young men this winter on the outlook for motorcycles," Mr. Alexander is quoted as saying.

ALTERING TIRE COMPRESSION

What Riders Seek to Gain by Increasing It
—How It Really Works Out in
Practice.

Too much of a good thing, is universally conceded to be far worse than none at all, and yet the average amateur gas engineer, hearing the endless discussion of the value of compression, is apt to lay too much stress on its importance, for one thing, and to gather the opinion that the higher the compression, the better the speed and power of the motor, other things being equal. Notwithstanding the fact that it is common knowledge that there is practically a limit to the advantageous use of high compression, there is a great tendency for the man who is at all mechanically inclined, to seek to improve the working of his motor by decreasing the clearance volume behind the piston and thus increasing the compression.

"It is certainly a fact that the pressure developed on the working stroke varies directly with that on the compression stroke, but notwithstanding this it is not advisable to attempt increasing power by reducing the clearance space," says a foreign exchange in this connection. "Some engines are designed to run at higher compressions than others, hence we may take good compression to mean a normal compression, and a pressure that gives good results with one engine will not necessarily prove equally satisfactory with another. Many motorcyclists seem anxious to always obtain a maximum compression, but they would do better if they were to content themselves with maintaining the normal.

"The higher the compression, too, the higher the temperature on the working stroke, and hence the high-compression engine, while giving a high speed and ample power on the level, often fails mysteriously on hills owing to overheating, which is very liable to occur with such an engine. A fairly high compression, then, gives the most efficient results on the level, but when much hill climbing is to be done a slightly lower compression is advisable if pre-ignition and overheating are to be avoided. It often happens that an engine which gives good all-round results when new, in time develops more speed on the level, but lacks power on gradients. This is a much more common experience than might be imagined and, while apparently peculiar, can easily be accounted for.

"It is well known that the compression of an engine gradually increases for a time when new by reason of the wearing in the rings, but besides this there is often, especially if the driver is not careful, a deposit formed in the cylinder head either by

imperfect combustion or over-lubrication. This deposit naturally reduces the clearance space, thus raising the compression in time considerably, and producing the results referred to. Some method of varying the compression to suit the varying conditions would, of course, give better working results if practicable, but can hardly be put into practice, a compromise being necessary. Motorcyclists should, however, not attempt to unduly increase their compression, but satisfy themselves in retaining the normal. Leakage past the piston rings, valves, or plugs certainly entails a loss of efficiency, and should be remedied, but beyond this nothing should be done, as the engine will run best with the compression for which it was designed, even if it is slightly lower than that of some others."

The End of an Advertising Stunt.

"When I was in the bicycle business many years ago we used to be hard put some times to devise new advertising schemes," remarked a retired veteran of the trade, "but at the same time there is no doubt that our methods were often unique and striking. Competition was keen and as for considering the ethics of advertising I don't suppose that question ever entered our heads.

"Once in a while some over-enthusiastic youngster in my employ would execute a stunt that bordered on the ridiculous but a gentle admonition was generally sufficient to remind him that he had gone a step too far.

"One promising youth connected with the repair shop, who was a trick rider of the amateur class, thought he might brighten up business a little and proceeded to get two old high wheels such as our forefathers used to effect. Straightening out the frames he brazed them together making the rear wheel rigid but allowing the front one to turn for steering purposes. Mounting this steed he proceeded to ride it up and down the street to the great delight of the small boy population and the equal astonishment of their elders.

"In order to have his scheme succeed he issued a challenge to the repairmen of my numerous rivals to mount the back wheel and take a trip with him. Naturally they did not hesitate to accept and the gymnastic evolutions that took place in the neighborhood discounted a three-ring circus.

"For some reason that I could not explain no one was able to stick to the back seat for more than two consecutive minutes and a bucking broncho couldn't unload its human freight in a fraction of the time that wheel could, but like many another good thing it met an untimely and tragic fate for one day it zig-zagged across the right of way of an electric car and got so much the worst of the deal that it was only fit for the scrap heap."

EXPLAINS ENGLISH EXPORTS

Belgian Importer Analyses Big British Figures—Believes American Bicycles are Superior to Britain's Best.

"In the *Bicycling World* of January 26, appeared an article entitled, 'England's Enormous Export,' which I read with interest," writes Henri De Rudder, the cycle importer of Ghent, Belgium. "The details are very interesting. They make plain what I know to be a fact—that while England does export a large number of wheels, she ships more of the parts of which they are built; a greater percentage are shipped to her colonies, however, and for the following reasons:

"At the present time, English manufacturers market complete bicycles at ridiculously low prices and give with each a guarantee, which high-grade cycle makers in other countries do not feel called upon to give; but the chief reason for the demand is due to the fact that an English subject is so loyal that he will seldom ride a machine of other manufacture unless he is very thoroughly convinced that there is a better product than that produced in his home country.

"Occasionally I receive a copy of a London weekly devoted to the cycling interests, and in it I see the advertisements of reputable concerns who advertise complete bicycles at the extremely low prices of 2, 3 and 4 pounds each, which means about 10, 15 and 20 dollars in American money. Of course, these prices are quoted to the trade only, but they are extremely low figures in comparison with the American trade prices on such high grade machines as Racycles, Pierces, Cleveland, etc.

"For beauty, workmanship, easy running qualities and so forth, it is not necessary for anyone to buy an English wheel, as any medium priced American bicycle puts them entirely in the shade. Furthermore, the unsightly and annoying two and three hand brakes with which the former are equipped are a nuisance to both rider and repairman. Here in Belgium, English wheels are not wanted; in Holland a few are sold but they are not popular with the majority of persons; in France, they are regarded as in this country. I do not know the attitude of other European countries towards them, but I will relate one personal experience:

"In September, 1905, I sold a certain manufacturer of this city a Racycle fitted with a Corbin duplex coaster brake—no hand brake—and equipped with G & J detachable tires, which, in my opinion are the best on the market. The gentleman in question is married to an English lady who, at the time of her husband's purchase from me, was the owner of a Raleigh, a bicycle of English make. He was anxious to have

her ride a Racycle also; but, oh no! she wouldn't part with her English wheel; none other was so good.

"In the spring of 1906, the same lady visited my place again and I inferred from her conversation that she thought she would like to ride a Racycle if she might try one for a week or so. I finally told her that I would get one ready and that she might try it, not only for two weeks but until she was convinced that it was better than any other wheel she had ever ridden, as I happened to know that before the Raleigh she had owned a Humber and previously a Singer bicycle, and I stated that if, after a fair trial, she did not think the Racycle was not only better, but very much better, she could return it without paying me anything for its use.

"Her Raleigh mount was equipped with 'wired on' tires, three brakes—one on the front tire, one on the front rim and another which acted on the rear rim—and a free-wheel rear hub. She accepted the offer I made her without any hesitancy. I fitted up a Racycle for her equipped with a coaster brake and detachable tires. When it was ready she took it away and I saw nothing more of her for three weeks. After that period, she came in smiling one day and said:

"Well, Mr. De Rudder, it's surely a fine wheel you gave me and I am going to keep it. I have sold my Raleigh for almost nothing. This Racycle is the finest wheel I have ever ridden. It runs so easily and then I do not have to pay attention to any brakes, and oh! a puncture can be so easily repaired."

"To make a long story short, this lady is so pleased with her American bicycle that she will never pedal another wheel of English make; and her opinion would be that of thousands did they but know the comfort to be derived from a really high grade American bicycle. There are a great many English people residing in this city, many of whom formerly thought there was no bicycle that could equal an English mount, but after an acquaintance with a high grade American machine, the Racycle, they have been convinced that it possesses many superior qualities. It is handsomer in appearance, is possessed of easier running qualities and it is easier to handle in case of any desired change or repairs. In my opinion, no foreign manufacturer builds high grade bicycles that are the peers of those produced by their American competitors."

Impressing the Casual Visitor.

Nothing so impresses the casual visitor with the actual state of prosperity of a business as the neatness and orderly condition of the place and the well or ill kept condition of the proprietor, and nothing better serves to foster the idea of prosperity, whatever foundation for the idea may actually exist, than the appearance of prosperity.

The Dealers Who Pinned their Faith to National Bicycles

in 1906

were the men who did business on

"THE SUNNY SIDE OF EASY STREET"

They had the bicycles with which to quickly answer the "Show me" demand—the bicycles that are not like the common run of bicycles—the bicycles that have individuality and talking points (which are merit points also) and which when sold stay sold and sell others.

**If Your Business Needs a Tonic, Why
Not Try the National Agency for 1907?**

NATIONAL CYCLE MANUFACTURING COMPANY
BAY CITY, MICH., U. S. A.

DO YOU KNOW

that you have only to specify them to get

The Fisk Tires

on Pierce, Columbia, National, Snell, Racycle, Iver-Johnson or
Reading Standard Wheels?

Our reputation for UNIFORM QUALITY, year after year, has induced these high-grade factories to carry a stock of Fisks. Our policy spells PROGRESS; in spite of their past high standard, Fisk Tires for 1907 will excel their predecessors. They will be the very best that years of experience, intelligent workmanship, and money can produce.

THE FISK RUBBER CO., Chicopee Falls, Mass.

Boston
Buffalo
Denver

Springfield
Cleveland
Minneapolis

New York
Detroit
Seattle

Philadelphia
Kansas City
San Francisco

Atlanta
St. Louis
Los Angeles

Chicago
Montreal

THE BICYCLING WORLD and MOTORCYCLE REVIEW

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General Agents: The American News Co., New York City, and its branches.

Change of advertisements is not guaranteed unless copy therefor is in hand on MONDAY preceding the date of publication.

Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should
Address us at P. O. Box 649.

NEW YORK, FEBRUARY 23, 1907.

Keeping In Touch With Patrons.

System is a word which has a very terrible sound to the man who is not thoroughly acquainted with its utility and economy, and usually calls to mind visions of endless rows of little boxes containing cards, from which no one but their owner can derive anything more than hopeless confusion. Nevertheless, it has its advantages, even when developed through the medium of the card index, and none is better able to benefit by its use than the bicycle dealer, even though the volume of his business may be comparatively small.

To such men, the idea of indexing customers and possible customers might appear to be the last thing in the way of rationality. Such practice is adopted as a matter of course by dealers in this and other lines who have a large number of people to deal with, or who undertake expensive advertising campaigns. But the agent whose livelihood is gained by repairing and selling in whatever proportion the business comes to his hands or can be reached, usually, besides being rather overworked, at least according to his own estimation, can see no room for counting-house methods in his little field. Just such

methods, however, may be made to net him the best of results. First, an index of this nature aids his memory in following up possible customers, whether by letter or interview, and, second, it enables him to keep track of his sales, trace the performance of the machines, cater to the satisfaction of their owners, and generally watch over his own interests in a way that otherwise would be practically impossible.

As to the method, it is comparatively simple, and not likely to take up more than a few minutes' times for each name recorded. Properly speaking, two indices should be maintained, one for prospective and the other for standing customers. The first, probably being comparatively small in bulk, might well be kept in a small pasteboard box on the desk, while the other should be given better security in a case or box made for the purpose. More than that, as the two are really merged to a greater or less extent by the transfer of prospective to acquired customers, and from acquired to lost malcontents, but one class of cards need be used, and generally speaking, but one card need ever be made out for each individual.

When a possible buyer is heard of, a card is at once made out in his name, giving the nature of his prospects, that is to say, what sort of mount he is interested in, whether he now rides, and if so, what machine, and the source of information. If his name is gained through an advertisement, or through a friend, the fact should be noted down with care, since from it a check may be obtained on the various methods of getting in business and their respective successes. If a letter or circular is sent to such a person, the fact, together with the date of enclosure and nature of reply, go down on the card. Similarly, if an interview is obtained, or if the individual calls at the store, the fact and the result together with the date, should be noted distinctly, and in the proper order. By this means, at any time, the exact nature of the prospects of present and future business may be obtained within the limits of human probability, with slight outlay of time, either in preparation of the record or in ascertaining the information.

As to the second, or main portion of the index, its utility though at first apparently subordinate to the other, becomes on investigation, even more important still. For whenever a sale is made, if the buyer has been on the former lists of possibilities,

his card as it stands, is at once transferred to the new group, and filed away in alphabetical order with the others. Thereafter, whenever the machine is brought in for repairs, the fact may be jotted down, together with reference to shop and card number, ledger page, or any other reference through which the exact nature and cost of the repairs may be obtained. If the new customer is instrumental in introducing others, the fact may be recorded in this way, while of the machine gives unusual satisfaction, and he becomes a useful "plugger" for the cause, the records of his usefulness, may become an important part of the archives at some time when the conversion of a particularly difficult prospect is being sought, or testimonial letters are in requisition. Incidentally, if for any reason, this person goes over to another dealer, a record of the cause of his defection from the ranks of the converts may be useful, especially if caused through some fault in the machine, since a number of such cases frequently prove the success or failure of some part and are interesting as supplying information to the maker.

Realizing that a customer lost, is not a name lost, but rather a new prospect gained, the wise dealer never will throw away a card of this nature, but will preserve it either in a class by itself, or return it to the index of possibilities for continuous reference. Thus a complete record of all efforts made to obtain sales, records of sales and repairs themselves, and finally records of results, may be kept in neat and orderly form, perfectly accessible at all times, and ready to supply information either upon any individual, or of the results of any method, device, or machine, and with the requirement of but a minimum amount of work in connection with the compilation of such figures. Moreover, the check thus maintained upon sales records and business transacted, proves a valuable one in many cases.

As to the more intimate details of carrying on such a system, it is evident that in the course of several years all the information hinted at in the foregoing paragraphs, might overrun a pretty good sized card, even though both sides were used. Some method of notation thus becomes useful, and for this purpose tabulated and printed blanks may be prepared. Any desired amount of material may be compressed into the space afforded, even to the length of keeping a ledger account on the

CORRESPONDENCE

back side of the slips. This practice, however, is bound to give trouble sooner or later, in addition to which the inconvenience of having to turn over the cards as they are used, and the liability of having them returned to the box reversed, thus losing the value of the index marks, is to be considered, and therefore is to be avoided unless large and rather elaborate cards are to be kept. Where a card ledger is maintained, however, the plan of allowing space at the top for the record of the sale, performance of the machine, and the other information contained in the "prospect" record, may be found practicable. In general, however, it will be found advisable to separate the bookkeeping entirely from this branch of the business.

Many of the uses to which such a record may be put already have been hinted at and others will present themselves with use, but a few may be mentioned by way of suggestion. Nearly every dealer, no matter how small his business, sends out circulars occasionally, and were he able to keep close track of his field, he might do so more frequently, especially were the results of each mailing closely followed. But in addition to this, a glance over the index now and then will enable him to notice what customers have recently had their wheels repaired, and what others are likely to be in need of new parts or accessories before long. In this way a hint for a personal letter may be gained, through which not a little extra business may be "scared up" even in a dull time. So in many other ways, constant familiarity with the customers' end of the business will breed suggestions as to methods of conducting the work, and if nothing more, the ability to put the finger on the address of any customer or any local rider—since all riders in the vicinity must legitimately have a place in one or the other of the two divisions of the index, it will in the end pay for the trouble it causes, many times over.

Clean whitewash that is fresh and neat, looks better than costly paint and varnish cracked and dirty, and a neat workbench is better and more useful than a quartered oak counter littered with greasy parts and tools and dented with hammer marks.

Nothing so impresses a casual customer with the actual style of business carried on in any particular shop as the appearance of the shop itself.

Noise That Does Harm.

Editor of The Bicycling World:

The penetrating sound of the exhaust from the high speed engine of the ordinary motorcycle, unprovided with a proper silencer or with the muffler cut-out open; when passing through city streets and country towns is an abominable nuisance to everyone, startling horses and irritating the public as well as being an incentive for the barking curs to raise their voices and add to the general hubbub which does incalculable harm to the sport. The increase in power derived from the use of cut-outs may sometimes be excusable on long heavy grades by the relief from back-pressure, always present to some extent, in even the best form of muffler; but the motorcyclist who continually keeps it open or rides with one that is simply a shell, is doing more than his share in attracting undesirable attention and cannot excuse his actions by any claim, that he cannot detect misfires, or that people can not hear him coming, for he should have and use a proper horn, when warning be necessary and then only.

Adverse legislation in the adjoining states more particularly directed against automobiles and the number of bills introduced at Albany should be regarded seriously by all motor riders and our behavior as F. A. M. members and as individuals should be such, as will not attract any undue attention from the public, in order that we may continue to enjoy the exemption, at least, in those States, where we have had such desirable privileges secured by hard work since the organization of the Federation of American Motorcyclists.

The greatest danger to the motorcyclist himself, through reckless riding, is so well understood by him and by the public that our passage through the streets and over the country roads is not regarded as a serious menace and if we will only remove the noise nuisance, it is but the question of a short time when a motorcycle will not attract any more notice than a push pedal bicycle does now.

The F. A. M. representatives, in the different States affected, are doing all in their power to exert favorable influence upon the legislatures and are doubtless being well supported by members, but the individual behavior of all riders, particularly in the Empire State, is what we should seek and it behooves each and every member of the F. A. M. to exert his influence in securing a complete abatement and entire suppression of all unnecessary noise, both when riding and when testing machines in garages or club-quarters or at stopping places and this influence will be far reaching, if we do it ourselves, so that the practice becomes even more effective than the preaching. Club officers should set the example to all members and the behavior of club

members will greatly influence that of unattached riders. F. A. M. 303.

Logue Says a Few Things.

Editor of the Bicycling World:

Referring to the "renewal of interest" in cycling: If a few persons in every town would "put their shoulders to the wheel" efforts would produce good results.

In a factory they generally have to burn something to make the wheels go round. Either they have splendid smoke consumers or my olfactory organs are in bad shape. You "couldn't hardly notice it at all." Sherlock Holmes could not discover any burnt bills in the vicinity of the great gazaboos. There's going to be a bargain counter sale of some stage money real soon. W. H. LOGUE, Baltimore, Md.

How Williams Would Improve Roads.

Of the stuff of which dreams are made must be the bill just introduced into Congress by Representative Williams. It provides that the surplus, if any, remaining in the treasury at the end of each fiscal year should be immediately distributed to the States, Territories and District of Columbia to be used for the sole improvement of the postal roads, and that the governors of the several states, territories and the Commissioners of the District of Columbia would be expected on the 15th of November of each year to make a full report of the work that had been done by the expenditure of such surplus funds, the manner in which the money had been spent, and the results that had been accomplished, all reports to be sent to Congress on the opening of each session.

Elgin Taxes Motorcycles \$5.

Hereafter it will cost \$5 to ride a motorcycle within the sacred precincts of Elgin, Ill., "where the watches come from." Heretofore while automobiles have been taxed \$2.50, motorcyclists have been free. But the city dads in their great wisdom suddenly doubled the price and included both types of vehicle in the doubling. The city itself will supply the number plates and expects to reap some little profit therefrom. As the numbers are 5 inches high, where or how the motorcyclists will display them is a question which did not give the city council the slightest concern.

Bill to Require Two Lamps.

In the New Jersey legislature, a bill has been introduced which seeks to require all vehicles to display not one but two lights after nightfall. The Federation of American Motorcyclists has lost no time in pointing out that two lamps on bicycles of any sort are not only absolutely unnecessary but practically impossible.

In France there are 4,700 licensed amateurs and 1,100 professionals.

McLAUGHLIN ON THE MAGNETO

With No Technical Knowledge, His Experience With It Has Been Highly Satisfactory.

One of the men who has been thoroughly converted to the use of the magneto for motorcycle ignition is J. F. McLaughlin,

with the magneto. It is merely a matter of priming the carburetter. The magneto requires a rich mixture—plenty of gas and very little air."

McLaughlin has received the first sample of the single-cylinder N. S. U. and is as delighted with it as he was with the "double." It is a remarkably smooth running machine, very little vibration being felt even when tested on a stand and as



J. F. McLAUGHLIN AND HIS N. S. U.

the New Yorker who imported a two-cylinder N. S. U. for his own use and who became so infatuated with it that he has gone into the business of selling the N. S. U. product.

Unlike most of those who have participated in the magneto discussion which has been waged in the columns of the *Bicycling World*, McLaughlin is not an electrical expert and knew practically nothing of the magneto when he imported his machine early last fall. But despite that fact, there has been but one occasion in the course of more than 1,000 miles when it has required attention and then it was a matter of but a few minutes.

"I'd hate to be compelled to go back to batteries," said McLaughlin. "There are a few little things to be learned about the magneto but any one can learn them and once they are learned he doesn't give it any more thought than he would give to a battery—possibly not as much. I soon caught on to the knack of how to start quickly

it includes an Eisemann magneto and a mechanically-operated $2\frac{1}{2}$ horsepower motor and also a band brake it is splendid value at the price, \$225.

When the Jet Becomes Clogged.

Great care should be taken in the cleaning out the carburetter jet not to use any instrument bigger than the fine hole in the jet, or any instrument which would be likely in any way to increase, ever so slightly the size of the orifice. So delicate is the adjustment of the orifice to the other conditions in the arrangement of the carburetter, that once working well and economically it never should be tampered with. A difference of .001 inch in the size of the jet will be found to make a considerable difference in the working of the device. For this reason the user should never interfere with it, and in case of choking through some foreign substance getting in with the fuel, it is advisable to blow it out if possible.

JACKSON ON DRY BATTERIES

Says an Additional Cell Would add Greatly to Mileage—Ammeters Are Very Often at Fault.

That if four cells instead of three constituted the battery equipment of motorcycles a far greater mileage would be obtained, was the striking opinion expressed by L. F. Jackson, of the Dunn Semi-Dry Battery, Hoboken, N. J., in his lecture on the subject "Dry Batteries" delivered before the New York Motorcycle Club on Saturday evening last. He stated that the addition of one cell easily gave the battery at least 2000 miles of life.

That cold weather affects batteries was another point brought out by Mr. Jackson. Although rarely suspected and despite the priming of the carburetter, etc., this is the real cause of the refusal to start of many motorcycles which are permitted to remain out of doors during the cold spell. Once the current begins to flow, however, the cells recover their efficiency.

The lecturer reminded his hearers that while batteries might have their faults, the ammeter occasionally incurred responsibility. They were not always accurate. He had known ammeters that registered 3 amperes when the battery practically was dead, while other batteries which the ammeter showed to possess only one ampere gave good service.

Mr. Jackson accompanied his talk with demonstrations. He made one of his particular type of cell during the lecture and also exhibited a curiosity in the form of a cell which developed 8 amperes and 3.1 volts—a remarkable force for a single cell. He likewise brought to the club a supply of cigars and cigarettes bearing the firm's label and which added to the sooth of the occasion.

Hendee to Have a New Indian.

George M. Hendee himself is to have the first of the new twin-cylinder Indians that is turned out.

"I haven't had a new machine for three years," was the rather surprising statement that followed his remark regarding the twin-cylinder. "I've been riding a 1904 model that has been patched up with the various improvements that have been brought out each season, but this year I mean to treat myself to a brand new machine and my order is in for the first twin-cylinder."

The fact that nearly everybody supposes that "the heads of the house" have first choice of everything thus is rudely disturbed. That they often forego their personal wishes that orders may be promptly filled in more often the case than is generally known.

HOW HE TAUGHT HELEN KELLER

Though Dumb and Blind She Took to Bicycle Riding Quite Easily—Onge's System of Signals.

"Although it is an old story, I do not doubt but that its venerableness will make it new to the younger generation of cyclists," remarked one of the ten-year-ago riders to a Bicycling World man this week. "What? Why, how the wonderful deaf, dumb and blind Helen Keller learned to ride a bicycle. It might be possible to teach a blind girl to ride a bicycle, but the average man would balk at giving lessons to one that is not only blind, but deaf and dumb in the bargain, and I'll give credit to the man that tackled the job. He is Fred St. Onge, who at that time was running a cycling school in Boston. Where is he now? I am not sure but I think he is out on the road with some theatrical stunt.

"It was in May, 1898, that Colonel Pope went into Onge's store one day and said that he had just presented Miss Keller with a tandem and that he wanted Fred to teach her how to ride. He agreed right away for it was about that time that Miss Keller was astonishing the entire world by her marvelous feats and Onge knew that teach-

ing her how to ride and guide a bicycle would not be so hard as it sounded.

"A few days later Miss Keller appeared, accompanied by her life-long friend, Miss Annie M. Sullivan, and in a few minutes the first lesson was under way. Miss Keller took the front seat and Onge the rear. The first ride was through the Boston park system. Miss Keller proved an apt pupil from the very first and, in fact, rode the first time with more confidence than most people blessed with their faculties.

"The instruction of Miss Keller was very interesting. At first a code of signals had to be agreed upon. For instance, to pedal slowly and ride at a moderate pace, a light tap on the shoulder. To increase the speed, two taps. To turn to the right a slight touch on the right arm, and so on. It may seem incomprehensible but after they had ridden two or three miles the signals she and her instructor had arranged were almost useless on account of the keen sense of feeling controlled by Miss Keller.

"They rode twice a week together, the longest ride being 28 miles, which was ridden in the fast time of 2 hours 34 minutes, a ride that any young lady with all her faculties might be proud of. Of course, during the ride it was impossible for Miss Keller to converse with Onge, but whenever they dismounted Onge could make himself understood. Miss Keller would place her finger on his lips and her thumb on his chin and through her wonderful

sense of feeling could understand everything he said. It was not long before she and her friend were riding around the city as well as anyone else, with Miss Keller always on the front seat. I do not know if she is still an ardent devotee of the bicycle but I've half a mind to take a run up to Wrentham, Mass., where she lives, some day just to satisfy my curiosity."

Effects of the Thaw Trial.

T. K. Hastings, Eastern vice-president of the F. A. M., had a bad attack of Thaw trial one day this week. He was talking of the 1907 models with several riders when he was seized.

"Say," he suddenly ejaculated, "have you heard of that Evelyn model that that firm out West is bringing out?"

"Evelyn model?"

"Yes; it's to be made of Thor parts."

While his friends were still blinking from the effects of this blow, he delivered another:

"Isn't that Aurora?"

"A what?"

"A roarer."

Jury Found Its Verdict Truly.

"Death by misadventure" was the verdict returned by the jury in an inquest on the body of a Scotch cyclist who failed to negotiate a corner at the foot of a hill. Evidence showed that the brakes of the machine were out of order.

Racycles in Foreign Lands

The accompanying illustration is an indication of the interest displayed in RACYCLES by our foreign friends.

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as being the largest selling high grade bicycles made—We guarantee them.

Sometime ago we offered a prize to anyone giving us a correct solution of the "CRANK HANGER PROBLEM," and several thousands persons, including some of the best mechanical engineers in the United States, entered into the competition. The result brought out the fact that

The Racycle Has 27.9 Per Cent. Less Friction On The Bearings

than ordinary bicycles together with increased ease in running and steadiness of adjustment.

This solution of the problem was certified correct by a representative of the United States Patent Office at Washington, D. C., and other reputable authorities. Good selling talk for Dealers.

We advertise in national magazines for the benefit of our agents and the enormous demand for RACYCLES this year proves that our agents are getting excellent results from this work.

We have a few agencies open and might change some old ones. Are you interested?

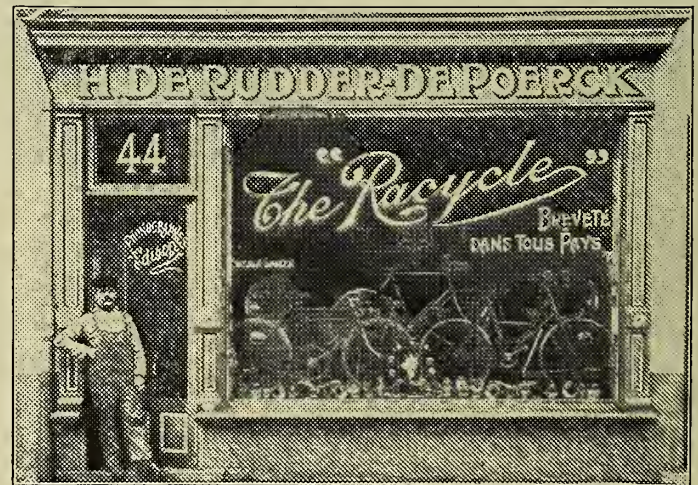
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JOHNSON'S TRIP TO THE SOUTH

Will Cover Some Three Thousand Miles on His Bicycle—Exciting Results of His Conscientiousness.

Axel Johnson, of Bridgeport, Conn., the member of the Century Road Club of America, who some time ago made a trip to Chicago and return, working his way as he went, is about to undertake a longer journey awheel. The trip under contemplation will be on business solely and as Johnson expects to earn his expenses en route there is little doubt but that his "tour" will be replete with incidents.

The Bicycling World has arranged to follow Johnson's rear wheel and detail the story of his peregrinations each week. The trip will embrace about 3,000 miles, going south as far as Norfolk or Charlestown, Va., and then southwest to Atlanta, Ga., thence to Columbus, Ohio, and back to New York. Johnson will make his expenses while on the road by any "legitimate" means, which includes riding exhibitions on the home trainer, selling pictures of himself or by any other way that presents itself. Johnson will ride a Racycle fitted with Morrow coaster brake, Fisk tires, and Persons saddle. He will start from New York early next month.

Johnson is a big, husky chap who looks able to accomplish almost any task of endurance that he might be put to. He came to this country from Scandinavia, and as he speaks five or six languages was able to make himself useful as soon as he mastered the English language. His most notable feat in the cycling line was in winning the Copenhagen-Paris race some years ago from a field of about fifty, and he but a raw novice. Since that time he has done little or no racing but has a good many medals and mileage bars to show for some hard plugging.

His trip to Chicago would not have caused any comment had it been made in summer, when the roads are dry and the weather delightful, but it was made in cold weather, when it rained about four days out of six, and when the rider had to pick his way through mud, riding for hours drenched to the skin. It was just this that often caused him to go to sleep on a floor or in some barn without any supper, for a rain-soaked and mud-covered cyclist is frequently regarded with suspicion. Very often Johnson was on the point of giving up and taking the train back home but his hereditary principles of Norse pluck stood him in good stead and he came through with flying colors.

Johnson is an earnest chap but his distinguishing trait is his conscientiousness. This was brought out with vividness one

time on his Chicago trip. It happened in a little town, the name of which makes no difference to the story. Johnson had been engaged by the manager of a show that was to appear in the town that night to go on with his home trainer and ride an exhibition. The house was crowded as is usually the case in towns where a show of any kind is a novelty, and when the manager came on the stage and introduced, or rather started to, the "champion bicycle rider of the world," the audience "fell for the game" and applauded vigorously. But the quiet and unassuming blue-eyed chap, instead of getting on his bicycle and doing his turn, walked up close to the footlights and announced to the crowd that he was



AXEL JOHNSON

not champion bicycle rider of the world, never was and never expected to be; that he was just an ordinary bicycle rider such as rode around the streets of B— every day; that he was making a trip in the interests of the paper by which he was employed and that he did not want to be misrepresented to the public."

Maybe the "spiel" didn't take! The people simply yelled themselves hoarse, and Johnson made a small "fortune" selling his pictures among the audience. A manager who had been "tearing his hair out" had to be met, but Johnson met the issue and the battle never happened, although some torrid remarks were hurled at each other when they met at the hotel. The rider was afraid the show manager or his hirelings might do something to his bicycle, so he took it to bed with him, and got away from town before daylight.

BOSTON'S SIX-DAY RACE IS OFF

Riders Who Signed for It Kept in Ignorance, However—They Were Busily Training in Vain.

Boston will not have its "six day" race, after all, and thereby hangs a tale which is rather amusing to all but a few coin hunters in this vicinity who had been "hired" to ride for ten hours during each of the six days.

Hugh MacLean came to New York City several weeks ago and signed Root, Fogler, Bardgett, Krebs, Schlee and Rupprecht to go to Boston. After his return, of course all the riders commenced training vigorously. Later the New York, New Haven & Hartford Railroad Company told the Park Square Amusement Co., lessees of the Park Square skating rink, where the race was to have been held, that it would not countenance a six-day race, as the building had been leased for skating only. MacLean neglected to let the New York and Newark riders know that the race had been called off until it was about time to go to Boston. It might be added that a few bicycle riders made some remarks not at all complimentary to MacLean's "business-like" methods when they heard of it.

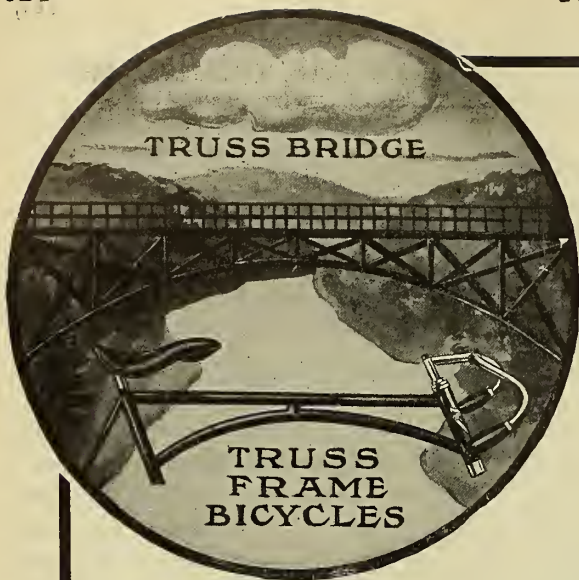
Although the joke is on them as well as on the other riders, Fogler and Bardgett, who were to have teamed, are the only ones that can have a laugh back at MacLean. They are expecting to swell their fortunes in a big coup soon, and they figure that their weeks of training have not been for naught.

International Union Elects Officers.

About the only business of importance transacted at the fourteenth congress of the Union Cycliste Internationale, held in Paris the 9th, was allotting the world's championships for 1908. They were given to the Steglitz track at Berlin. The election of officers resulted as follows: President, Emilie de Beukelaer, Union Velocipedique of France; vice-president, Pilade Carozzi, Unione Velocipedista Italiano; secretary, Paul Rousseau, Union Velocipedique of France, and treasurer, E. W. Britten, National Cycling Union.

Pottier May Have a Monument.

One of the late Rene Pottier's greatest achievements was the climbing of the Ballon d'Alsace, the long steep hill which had to be negotiated in the Tour de France. In 1905 and 1906 he absolutely dropped the pick of the French road riders who endeavored to hang onto his rear wheel, arriving at the top of the hill several hundred yards in advance of his rivals. His many admirers have, therefore, suggested that a monument to his memory be erected at the top of the hill.



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TOLEDO, OHIO

SALT LAKE FOR FRANK KRAMER

Champion Has Signed For the Entire Season—Little Left for Vailsburg—
The Exodus to Europe.

"I am to stay in Salt Lake for the entire season of 1907. As I have signed this contract it will be impossible for me to make a European trip. As to Vailsburg, I know nothing about what they intend doing there this season."

This from National Champion Frank L. Kramer, in response to an inquiry as to whether a report that he had signed to ride in Salt Lake during the coming season was correct. As Kramer verifies it, the news is very significant, and gives an inkling of what will be doing on the Salt Lake track.

Last year was the most profitable in the history of the Salt Palace saucer, but predictions are freely being made that unless this season's racing equals, if not betters, last year's, bicycle racing will soon be a dead issue in Salt Lake as it is in Denver. The reason given is that promoters are endeavoring to make baseball the popular sport in Salt Lake. So far they have not succeeded but what the future has in store remains to be seen.

Last season when Kramer went to Salt Lake and defeated Iver Lawson in three matches, for a purse larger than had been offered in a bicycle race for many years, the champion made a good impression, and it is upon this, it is thought, that Nelson and Halvorson are banking. With Lawson and McFarland both away from Salt Lake, as it is expected, Kramer will be practically the only drawing card, and it is a question whether he can make good from the back mark.

Lawson will sail for France on the 30th of next month and it is very likely that he will remain there until the world's championships are run in June and July, in which case, it is a safe bet that McFarland will also stay to help Lawson in the heats. Two other prominent riders are making plans to go abroad, and as they were usually in the money at Salt Lake it suggests that the Zion saucer may find itself shy on "stars."

The mention of Vailsburg is always accompanied by a doleful sound these days. It looks as though the old boards will not rattle this season. There was a movement on foot for the formation of a Newark company for the operation of the Vailsburg track this coming season, which was entirely separate from any promoters that have had the track before, but now that Kramer has signed to go west the persons interested in the venture have let the scheme drop. As Kramer is assured for Salt Lake and Lawson is going to Paris, it is within reason to believe that McFarland

will not manage the Vailsburg track, the straw upon which some based their hopes that the racing game in the east would be returned to its former splendor. Incidentally, it might be remarked that there are several new third-rate professionals herabouts that wish they had not forsaken the amateur ranks last year.

To Solve the Dust Problem.

If thoroughness and multiplicity of wise counsel avail, England is going to solve the dust problem. A most remarkable national committee has been formed, the mere perusal of the names of the bodies composing it being of great interest as showing how wide is the range of concern in the problem.

The National Committee is made up from the following bodies: Automobile Club Dust Committee, Motor Union of Great Britain and Ireland, Roads improvement Association, Dustless Roads Joint Committee, Cyclists' Touring Club, National Cyclists' Union, Institute of Civil Engineers, Association of Municipal and County Engineers, County Councils' Association, County Surveyors' Association, Royal Agricultural Society, Royal College of Physicians, Local Government Board, Dustless Roads Association, Four-in-Hand Club, Coaching Club, Highways Protection League, Society of Motor Manufacturers and Traders, Car Dust Committee, Royal Sanitary Institute, and the Automobile Mutual Protection Association.

Competitions for tar-spreading machines and for the best tar preparations are now in process of organization as the first steps toward the final solution.

How the Cracks Aid Digestion.

Perhaps one of the most important items in commencing the annual spring training is a gradual but thorough cleansing of the stomach and digestive organs. After a long rest and a winter's indulgence in foods of all descriptions, it is most essential that the system generally should be in perfect order before hard work of any kind is taken; while of course a certain amount of superfluous weight has to be worked off. For the first two or three weeks, during which time the work should consist of two or three easy rides a week with a long ride on Saturday or Sunday, simple laxatives should be taken.

As there are so many which serve the same purpose it is best to settle on something that has done the work before, such as stewed prunes without sweetening, or stewed rhubarb; for something more effective, Beecham's pills may be used. A lot of the cracks take a small glass of Hunyadi Janos each morning, or two or three times a week as the occasion may demand, and it keeps their bowels well regulated. Of course, much depends upon the amount of vegetables and fruit included in the daily menu. Fruit in season is always healthful, but not too much of the other.

McFARLAND STILL SCORING

Continues His Winning to the Disgust of French Fans—Guignard Takes Another Record—Fast Meets.

Floyd McFarland kept up his winning streak and defeated Cornet at the Velodrome D'Hiver, Paris, on the 10th inst. By so doing the American got a taste of French enthusiasm, but as Frenchmen are in the habit of throwing things McFarland took no notice of it, except to dodge the balls of paper that were thrown at him and laugh off the hisses. In justice to the French it must be said that there were some fair-minded persons who did not hiss simply because an American had trounced a Frenchman, but the riff raff got boisterous as usual and started in to throw things.

The race between McFarland and Cornet was for 20 miles, human tandem pace being employed. At the start Cornet got about a dozen yards ahead of "Long Mac," but the latter's two excellent pacemakers, Vanoni and Thuau, soon pulled him up to and past the Frenchman. The race throughout was one round of continuous jockeying, and at the finish the remarkable American simply swept by his rival and won by two lengths, in 40:40½. McFarland appears to be getting better each succeeding week.

Paul Guignard, the world's one and two hour record holder, added another record to his score, when he rode 60 kilometers (37 miles) in 44:51½, the old record being 45:55½, by Walthour. Guignard's opponents were Nat Butler and Menus Bedell, both Americans, and the latter was making his debut. The Americans rode well, but they could not keep up to Guignard, who is really in a class by himself. Butler finished six laps behind and Menus Bedell fifteen laps. Just at the finish Bedell slowed in front of Fossier, one of the pacemakers. His wheel rubbed against Fossier's engine and the Long Islander fell in front of the heavy machine, coming within an inch of getting cut in twain.

The sprint race gotten up in honor of the delegates to the congress of the U. C. I., was won by Dupre by a half-wheel's length from Benyon, of England, Rettich finishing third by one length. Vanden Born was last. Vanoni and Thuau won the tandem lap race from Rettich and Carapezi.

At the meet held the following Tuesday Oscar Schwab ran second to Dupre in the sprint race, Benyon getting third and Vanden Born fourth. Poulain tried to go against a tandem manned by Vanoni and Thuau and was beaten in two straight heats. Thuau got the mile handicap from scratch, Peguy the motor race and Dusot the paced race. Guignard triumphed over Contenet in their match race.

Morrowization and Its Effect

Cleveland, Ohio, Jan. 29, '07.

Eclipse Machine Co.,

Elmira, N. Y.

Gentlemen:

Last spring I sent to your firm for a circular descriptive of the Morrow Coaster Brake. I had already inquired into the merits of other brakes but as the Morrow looked best to me I purchased one. I used the brake on my bicycle almost every work day riding to and from work. On my country rides for recreation I traveled over some of the steepest hills in this section of Ohio, and I always found the Morrow Brake to give the very best of satisfaction. It never slips or binds and I consider it the most reliable and powerful on the market. Wishing you success for the coming season, I remain,

Yours truly,

J. A. Faulk.

Why Don't You Morrowize Your Bicycle?

WILL HISTORY REPEAT ITSELF?

Stressful Stages of Cycle Racing Recalled
by Motorcycle Situation—Efforts to
Create the Hybrid Amateur.

If close contests, instead of the runaways that now are the rule, permit motorcycle racing to become an established sport it is reasonably certain that history will repeat itself once more and if anything in an exaggerated form. Already the oft-discussed subject of amateurism and of the trade interests and rivalries involved have caused ripples on the pool of motorcycle sport and what with horsepower, weights, strokes and bores and other mechanical what-not which had no place in the affairs of long ago, the possibilities are almost without limit.

The disgruntled manufacturer who "organized" a "national association of motorcyclists" merely by printing a letter head and who offered a refuge to all and anyone who had been suspended or disciplined or who otherwise had become possessed of a sore head, is merely one sign of what may be expected. There is even a rumor that the spotless Jacob Derosier, of Springfield, Mass., who after years of peculiar rectitude in cash chasing, unexpectedly found himself reincarnated an amateur, intends to organize a little association for other blown in the bottle "amateurs" of his own brand. The F. A. M. recently cast Jacob back into the professional swim and he doesn't like it a bit. Motorcycle professionalism is not a paying profession as yet and in consequence Derosier feels rather lonesome and quite "sore."

The situation recalls the conditions that existed twenty years in cycle racing and in the L. A. W.. Time has given a mantle of gentility to professionalism but at that time the term "professional" was a stigma and a reproach, the force of which cannot be appreciated by the present generation. The cash chasers of the early and the middle 80's were, generally speaking, a scaly lot. Honest competition was not even expected of them. No man who valued his reputation cared to be classed with them. At that time, although there were but three even half-prominent bicycle manufacturers the influence of trade on sport was keenly felt and the amateur standing of the stars of the path was a matter of much warm debate. Partisanship ran high and the cyclists of the United States divided into two camps—the Columbia and the Victor camps; there also was a corporal's guard under the Gormiley & Jeffery banner, but the latter was then too small to cut much of a figure. All the cracks were supposed to be subsidized by either Pope, who stood for Columbia, or by Overman, who produced the Victor.

"Makers' amateurs" was the term usually applied to them. The definition of an amateur was a subject that fairly sizzled.

In those days Springfield was the magic word. The Springfield tournament, held in the fall of each year, marked the zenith of the sport. Second to it was the Hartford tournament. And the king of the sports promoters was Henry E. Ducker, the same who only last year embraced the motor bicycle. Ducker and Springfield were inseparable. The fame of one was the fame of the other. Ducker brought over the cream of the foreign talent and pitted it against George M. Hendee, then literally the idol of Springfield, and "Billy" Rowe, the Lynn shoemaker who displaced Hendee as the American champion while all Spring-

charged with "ruining the sport" and with about everything else that the brains of men with grievances could conceive. Ducker at that time printed a monthly cycling journal in Springfield and he and not a few others fired the hottest kind of hot shot into Bassett and the L. A. W. But Bassett never flinched. He stood nobly by his guns.

The inevitable happened. All the aggrieved racing men, race promoters, race promoting clubs and their sympathizers decided to "take away the control of racing from the L. A. W.," or to "put the L. A. W. out of business." For the purpose they formed the American Cyclists' Union, adopted a constitution and by-laws, evolved a pretty badge with outspread wings and with a diamond—or a bit of glass—in the center of it. Ducker was elected its president and A. O. McGarrett secretary. Bids were made for the support of clubs by the by-laws which placed an annual fee of \$5 for club membership and of 25 cents for unattached riders. It was a formidable array; for although they did not appear in the foreground it was well known that both Pope and Overman were "behind the scenes" and that the A. C. U. had their sympathy if not more.

Ducker, who was then L. A. W. chief consul of Massachusetts, was promptly removed from that office by the president, the late N. M. Beckwith—an act which added fuel to the flames and proved another thundering sensation.

In due course, the A. C. U. formulated racing rules. They serve to show how repugnant was the term "professional." If ever any doubt existed in his mind, Bassett long afterwards, when that term had lost its sting, had the satisfaction of knowing that his action was justified; for the "subsidized" racing men tried to create a hybrid class, which they styled "promateur," the A. C. U. definitions being as follows:

(A) An amateur is any person who has never, either in public or in private, raced or exhibited his skill for a public, or for a private stake, or for a purse, or for gate money, and who has never competed under a false name, who has never backed or allowed himself to be backed either in a public or private race, and who has never assisted nor taught any recognized athletic sport for money.

(B) A promateur is one who at any time or in any degree violated his amateur standing as defined above by receiving his expenses or other remuneration for riding the cycle in public exhibitions.

(C) A professional wheelman is one who at any time and in any degree has violated his amateur or promateur standing as defined above.

To prevent any misunderstanding in interpreting the above, the union draws attention to the following explanation: A wheelman forfeits his right to compete as an amateur, and thereby becomes a promateur, by (a) accepting payment or any valuable consideration other than open prizes for training or coaching others, or for engaging in cycle racing or any other athletic exercise. A wheelman forfeits his right to compete as an amateur or pro-



NEW YORK BRANCH: 214-216 WEST 47TH ST.

field wept. The competition made world's history and world's records. But the matter of "makers' amateurism" would not down. It was forever bobbing up until in 1886, Abbott Bassett, now the grey-haired secretary of the L. A. W., and then the vigorous chairman of its racing board, gave it a whack that resounded throughout the world. At one fell swoop he professionalized Rowe, Hendee, Burnham, Ives, Weber, Rhodes, Munger and every other rider of note; and he did not overlook the foreign contingent, either. Furnivall, Sellers and the other English cracks who had visited this country were debarred from competition.

The howl that went up reached to heaven. The blow split the sport asunder. It left sore-heads in every direction, in the trade and out of it. It threatened not merely the glory, but the life of the beloved Springfield tournament and of Hartford's and of all the others. Bassett was bedamned and rebedamned from one end of the country to the other. He was

mateur and becomes a professional by (a) riding the cycle or engaging in any athletic exercise for a money prize or for gate money; (b) competing with, or pace-making for, or having the pace made by a professional in public or private for a prize or gate money; (c) selling, realizing upon, or otherwise turning into cash any prizes won by him.

"The A. C. U. has come to stay," announced Arthur L. Atkins, one of its well-known exponents, who managed the Columbia team. "It will push racing into its proper place among our national sports, and not throw a damper on everything enterprising as the L. A. W. has always done."

The Springfield and Hartford and Lynn tournaments and nearly all the other principal race meets of 1886 were held under the A. C. U. auspices and rules. But the L. A. W. went serenely on its way and "outlawed" the "outlaws" as quickly as they were developed and despite the apparently formidable defection or rebellion it never wavered. At the end of two years, the A. C. U. practically dried up and blew away and the "rebels" and "promateurs" made their peace with the L. A. W. and got under cover as quickly and as quietly as possible.

Periodically, there were small squalls of the sort and squallers who also sought to put the L. A. W. out of business, but they never amounted to much. Even within the L. A. W. there occasionally came murmurs of secession. One that arose in 1893 is typical of them all. Because a race meet in Worcester sanctioned by the L. A. W. conflicted with the Massachusetts Division's meet a great howl went up and not less than George A. Perkins, then chief consul of that State, began to mutter secession. Up to that year, the professional remained a half-outcast. Although the L. A. W. permitted races for cash to be run at sanctioned meets, it paid no other attention to the coin chasers and did not seek to regulate their affairs.

But in 1893 cycle racing was attaining great popularity. The safety bicycle had come into vogue and the question of "makers amateurism" or "shamateurism" as it was sometimes termed, was again rearing its head. The big gates attracted to the races meets aroused the professional instincts of some of the baseball magnates of whom Pat T. Powers—still the six-day promoter—was one. They saw millions in "cycle racing run on a business basis," with cash prizes, paid officials and money for every one connected with it. The "National Cycling Association of America" was formed as a result. It was better known as the "cash prize league" but it was a wholly different organization from the present N. C. A. and did not conflict with the L. A. W. It promoted professional racing only and governed only professional riders and declared itself ready to quit whenever the L. A. W. was ready to embrace the pro-

Harry Wheeler, Peter Berlo, A. B. Rich and W. F. Murphy were among the first of the "shamateurs" to join the cash brigade, and, almost needless to add, Jack Prince, C. W. Ashinger, Wm. Martin, Frank Albert and the other six-day pros—to whom the "cash prize league" was a veritable Godsend—embraced it on the jump. Even the once champion "Billy" Rowe was drawn from retirement and made a star attraction. But Rowe was then a backnumber and could not hold his own with the younger generation. He quickly returned to retirement. W. J. Morgan and Tom Eck were, of course, "hurrahing" vigorously for the new organization—so vigorously, indeed, that Chairman Raymond of the L. A. W. Racing Board, felt called on to issue a public statement denouncing one of them as "an unmitigated liar" and the other as a "blackmailer." F. A. Egan, O. S. Bunnell and S. W. Merrihew, who had been prominent in L. A. W. officialdom, were engaged as the active managers of the affair, Powers and his baseball element remaining in the background. An ambitious racing circuit with long lists of cash prizes was arranged but the "cash prize league" proved an expensive plaything for its promoters. It fizzled out at the end of a year. But it served to pave the way to decency in professionalism and really influenced its present ascendancy in cycle racing.

The following year, 1894, the rising tide of protest against "maker's amateurism" caused the L. A. W. to take its first step in the direction of professional control and caused history to repeat itself by providing for "promateurs" whom it labeled "Class B," the definitions of the two classes then adopted being as follows:

Class A.—An amateur of Class A is one who has not engaged in, nor assisted in, nor taught cycling or any other recognized athletic exercise for money or other remuneration, nor knowingly competed with or against a professional for a prize of any description; or who, after having forfeited the amateur status, has had the same restored by a unanimous vote of the National Assembly L. A. W. A cyclist ceases to be an amateur of Class A by:

(a) Engaging in cycling or other recognized athletic exercises or personal teaching, training or coaching any person therein, either as a means of obtaining a livelihood, or for a wager, money prize or gate money; (b) Competing with a professional or amateur of Class B, or making the pace for, or having the pace made by such in public or for a prize; (c) Selling, pawning, exchanging, bartering or otherwise turning into cash, or in any manner realizing cash upon any prize won by him; (d) Accepting directly or indirectly for cycling any remuneration, compensation or expense whatever; (e) In this class no prize shall exceed fifty dollars in value, and such prizes shall be limited to medals, diplomas, plate, jewelry and cycle sundries only; (f) An amateur of Class A may not compete outside of his own State at a distance greater than 200 miles from his legal residence, except by special permission of the members of the Racing Board in charge of his district; (g) A cyclist does not forfeit his Class A status by teaching the ele-

ments of cycling solely for the purpose of effecting the sale of a cycle, nor shall the business of cycle manufacturers and bona fide agents, as such, be considered in determination of their amateur status; (h) License may be granted by unanimous vote of the Racing Board for a special competition in any year between the recognized champions of Classes A and B, the prize rules of Class A to govern the contest; (i) Any amateur who neglects or refuses to answer questions touching his status in Class A to the satisfaction of the Racing Board, and within thirty days, shall be transferred to Class B, and shall have no further opportunity for hearing or appeal.

Class B.—An amateur of Class B shall be a cycle rider who may be in the employ of, and have his traveling and training expenses paid by, a manufacturer of cycles, clubs or other parties interested in cycling, but shall not compete for a cash or divisible prize, nor realize upon any prize won by him except as hereinafter provided. One also who has ridden for any prize valued at over \$50, or of different description from that allowed in Class A. A cyclist ceases to be an amateur of Class B by:

(a) Engaging in cycling or other recognized athletic sports or exercise, for a wager, money prize or gate money; (b) Competing with a professional, or making pace for, or having pace made for himself by such in public or for a prize, except as hereinafter provided; (c) Selling, pawning, or otherwise turning into cash, or in any manner realizing cash upon any prize won by him, except that prizes may be exchanged or bartered provided there is no case a cash bonus received; (d) A cyclist does not forfeit his amateur status in the class by teaching the elements of cycling; (e) Any amateur of Class B who neglects or refuses to answer questions touching his amateur status, to the satisfaction of the Racing Board, inside of thirty days, shall be declared to have forfeited his amateur status.

Curiously enough, R. G. Betts, who is now president of the Federation of American Motorcyclists, in which history promises to repeat itself, and who at that time was an L. A. W. delegate, was the only man who opposed the adoption of the hybrid class. Although its enactment was certain and its proposal by Howard E. Raymond, then the immensely popular Chairman of the L. A. W. Racing Board, had been greeted with tremendous enthusiasm, Betts, in an ironical spirit, offered the following substitute:

"An amateur of Class B shall be a cycle rider who has become speckled by being in the employ of, and having his traveling and training expenses paid by, a manufacturer of cycles, club or other parties, etc."

Needless to say the proposition fell flat, Class B being adopted with a tremendous whoop.

But like all other efforts to form a middle or semi-professional class in sport, Class B and its "speckled amateurs" lasted but three short years. When it was abolished, the class B riders were given their choice of becoming whitewashed amateurs or straight-out pros. By that time professionalism had lost most of its stench and ceased to be a quasi-disgrace, and many of the "B" men embraced it; cash prizes became abundant and gradually the pro be-

came the "star" in the cycle racing firmament and the one to whom race promoters catered and whom the crowds went to see.

The L. A. W. controlled the sport until 1900, when by resolution it was amicably transferred to the National Cycling Association which had been formed the preceding year. For two years previous to the transfer, Isaac B. Potter and some other influential men in the L. A. W. had created a clatter about the evil of appearing to be a "sporting organization" and urged therefore that the racing department be abandoned. They told tall and eloquent tales of the "tens of thousands of business men" who would not affiliate with a "sporting organization" but who would fairly

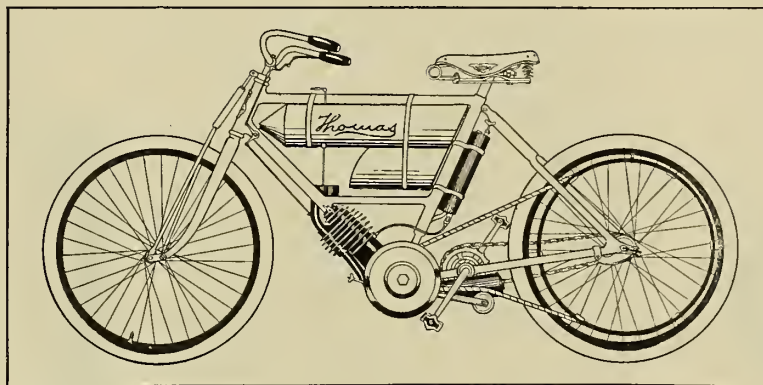
rush to join the L. A. W. if it divested itself of its "sporting" guise. This sort of pother finally carried the day and the L. A. W. after its long years of race control surrendered it to the N. C. A.

The latter grew out of the suspension of several of the most prominent tracks in the East. The owners had formed a circuit which proved a failure and as a result bills had been left unpaid. The L. A. W. imposed a fine of \$1,000 on each track and suspended all of them. At about the same time A. G. Batchelder and R. F. Kelsey had a falling out with Potter and had been suspended by the L. A. W. They joined the disgruntled track owners and formed the N. C. A. For a year there were a num-

ber of conflicting meets held, but Potter's "anti-sporting organization" crusade within the L. A. W. was what put an end to what might have resulted in a fight. It is fair to add that the "tens of thousands of business men" never materialized as members of the men" never materialized in the L. A. W. may have to do with the control of any sport can escape periodical squalls. Whenever a prominent man or club considers himself or itself offended, their first impulse is to "get even" and the "getting even" usually finds relief in threats or efforts to form a rival organization to put the other out of business. The N. C. A. has heard such mutterings and undoubtedly will hear more of them.

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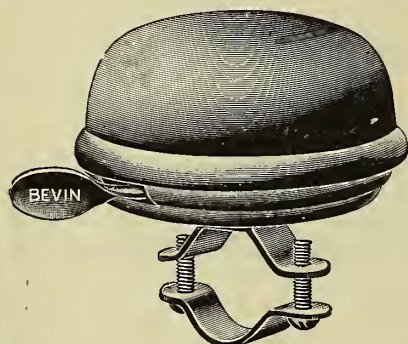
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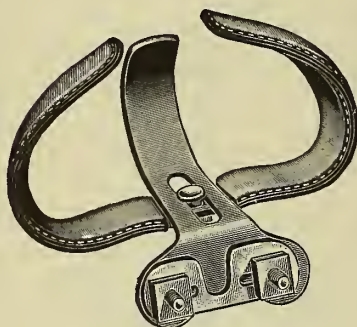
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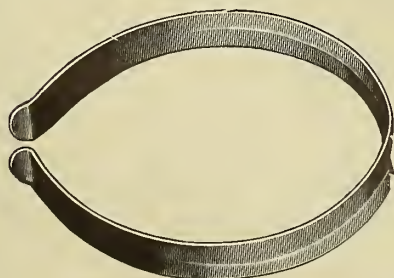
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The Week's Patents.

842,052. Carburetter. Lars Andersen, Chicago, Ill., assignor by direct and mesne assignors, to Triplex Gas Engine Company, New York, N. Y., a corporation of New Jersey. Filed Dec. 8, 1904. Serial No. 235,912.

Claim.—1. In a carburetter, the combination with a valve-housing having a central passage therethrough of cylindrical valve members arranged within said housing extending transversely across said passage, said valve members being telescoped, the one within the other, and having registerable openings, means for relatively displacing said valve members to vary the area of the openings therethrough, and a fuel-supply passage delivering into said housing-passage.

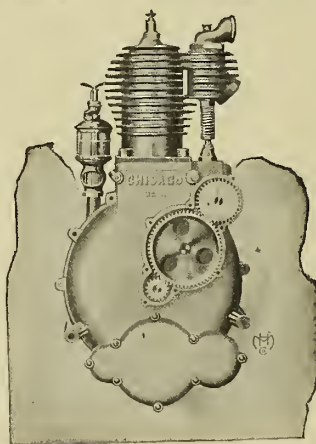
843,004. Connecting-Rod for Trunk-Pistons. Herman Docke, Wyncote, Pa., assignor to Dock Gas Engine Company, a corporation of New Jersey. Filed April 25, 1906. Serial No. 315,557.

Claim.—1. A connecting rod having a cupped or concaved bearing-face at its end.
2. A connecting-rod for a trunk-piston, said connecting-rod having a cupped or concaved bearing-face at its end.

843,028. Carburetter. Eugene L. Mueller, Paris, France. Filed Oct. 17, 1905. Serial No. 283,178.

Claim.—1. A carburetter, comprising in combination, a mixing-chamber having an air-inlet and a mixture-outlet, a liquid-reservoir located below said mixing-chamber and presenting a conical wall, a vertically-adjustable member having a conical wall projecting into the said reservoir parallel to the first said conical wall, and a wick located between the two said conical walls and projecting from said reservoir into said mixing-chamber, substantially as set forth.

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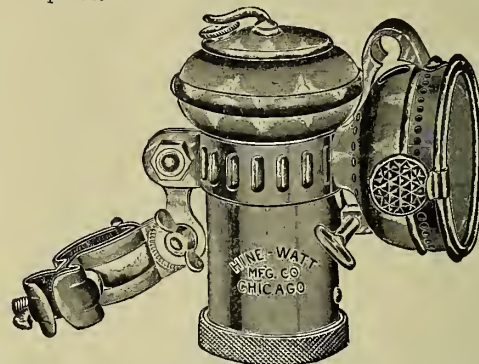
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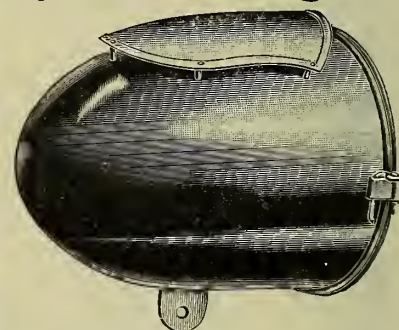
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FOUNDED 1877

Volume LIV.

New York, U. S. A., Saturday, March 2, 1907.

No. 24

CYCLES AT SPORTSMAN'S SHOW

Both the Pedal and Power Driven Varieties Are in Evidence—Coaster Brake Being Featured.

Two lines of bicycles and three of motorcycles are in evidence at the Sportsman's Show which opened last night in Madison Square Garden, New York, and which will continue until the 9th inst.

The Reading Standard Cycle Mfg. Co. is the only manufacturing concern which is directly staging its own product, the Reading Standard bicycles and the R-S motorcycles. J. F. McLaughlin, agent for the N. S. U., is showing that foreign machine in both single and two cylinder models, and the New York Sporting Goods Co. is displaying the Hudson bicycles, and also a line of its own jobbing wheels. The Sporting Goods Co.'s exhibit includes also a number of accessories, among them a Corbin two-speed coaster brake, which because of an arrangement with the Corbin people, is being "demonstrated" and otherwise specially "featured" and exploited.

"Doing Things" in Pierce Factory.

While the Pierce Cycle Co., Buffalo, will this year market a Thor-type of motorcycle, with their usual thoroughness, they are conducting a deep research into motorcycle possibilities and are experimenting with not only all known types, but are working out several original ideas of their own, which are not unlikely to result in a model that will cause folks to "sit up." Meanwhile, the Pierce factory is working night and day on pedal propelled bicycles in an endeavor to catch up with the orders.

Britain's Biggest Parts Makers Combine.

The Eadie Mfg. Co., one of, if not, the largest producers of parts and coaster brakes in Great Britain, has been absorbed by its chief competitor, the Birmingham Small Arms Co. The latter has a capital

of \$3,000,000, made up of £5 shares, and last year earned £74,111, out of which it paid a 15 per cent. dividend, and had remaining a reserve fund of £75,000. The consideration given Eadie was 42,500 shares of common stock and a cash consideration equal to 23 shillings on each of the 12,665 shares of £5 preferred stock. The Eadie Co. last year reported a profit of £83,491, and declared a dividend of 25 per cent. Under the terms of the deal Albert Eadie will become the director of the B. S. A. cycle department.

England's Boomlike January Exports.

For the British cycle export trade, the new year began with even greater strength than marked the opening of 1906, in fact, the shipments in January last constituted the heaviest monthly total since the boom year, 1897. During the month the exports attained an aggregate value of £109,011, as against £104,195 during January of last year, and £65,589 during the same month of 1905. The month's shipments were made up 6,740 complete bicycles, value £32,865, and parts to the amount of £76,155. During the corresponding period, there were imported into Great Britain 50 bicycles, value £431, and parts valued at £15,312, a total of £15,743, as compared with £12,575 in January, 1906, and only £6,519 in the first month of 1905.

Emblem Begins Motorcycle Deliveries.

The Emblem Mfg. Co. Angola, N. Y., which only recently "went into" motorcycles, is well satisfied with its venture. Manager Schack reports that the demand is "quite good." He began making deliveries of the Emblem motorcycles this week and expects to be able to continue shipments on 10 days' time.

Willis Takes Up Motorcycles Again.

E. J. Willis, who was among the first New York dealers to take up motorcycles, and one of the first to drop them, has seen the great white light and has embraced them once more. He has secured the agency for the Merkel.

WELDING WITH ACETYLENE

Worcester Parts Manufacturers Adopt a New Process—Features of It and How It Operates.

One of the most recent developments of the metal-worker's art as applied to automobile construction, is the use of the oxy-acetylene blow-pipe in welding processes. To a certain extent, this device is coming to take a place formerly occupied by the oxy-hydrogen burner, which, before its invention produced the hottest known flame, and next to the electric arc, developed the highest known degree of heat. As yet, however, its advantages are but little known, and on this account, the recent installation of a furnace equipped with this system by the Worcester Pressed Steel Co., Worcester, Mass., is noteworthy. This is the second plant of its kind to be used in this country.

Mechanically, the flame is produced in exactly the same way as is the oxy-hydrogen flame. That is to say, a jet of acetylene is caused to burn in an atmosphere of pure oxygen, the gases being generated simultaneously in independent apparatuses, and forced into the burner under pressures varying from 15 to 150 pounds per square inch, according to the needs of the work. In starting the flame, the acetylene is first ignited and allowed to burn independently, the oxygen being turned on afterward, and increased until the flame develops a single cone, the indications of an approach to the correct adjustment being first the white color of the acetylene gas itself, which gradually disappears with the increase of the oxygen, then the development of two cones, and finally their merging into one of great distinctness and purity. Any excess of oxygen is indicated by the development of a violet tone.

At the apex of the cone is the hottest part of the flame, and consequently the

working point, which is directed at the joint or other part of the work, the heat is desired. Just at this point, the temperature may be as high as 6,300 degrees Far., or some 2,700 degrees higher than the hottest part of the oxy-hydrogen flame. In use, the flame is so directed that this point shall be not more than $\frac{1}{4}$ inch away from the working part of the heat. Generally speaking, no flux is required for the weld, the hydrogen and carbonic oxide gases generated by the flame, being sufficient in themselves to protect the metal from oxidation and also to prevent loss of heat from the scarfs. For working alloys, however, such as brass, and the bronzes, borax and water, or a little boracic acid, is used to prevent the deposition of the volatilized zinc between the molten surfaces and the consequent destruction of the union. Thus a true fusion of the parts is effected which is entirely different from the ordinary brazing process which in some respects it resembles.

The Worcester Pressed Steel Co. are using this method for a number of operations which hitherto have employed riveted and soldered joints, the delicate graduation of the flame which is possible, permitting its application to work of any thickness or temper. It is even possible to produce a successful butt weld with sheet metal in this way, its strength being augmented by fusing a wire or rod of the same metal into the seam at the instant of forming the joint. Tests of joints made in this way, prove them to be quite as strong as the original metal and of course far superior to any of the seamed or brazed joints. The joint is entirely concealed, and is impossible of detection after completion.

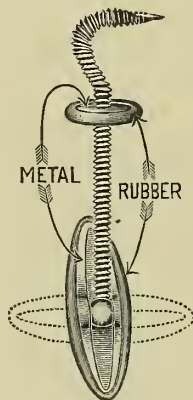
Some idea of the scope of the system is furnished by the statement that with each burner twenty nozzles are required in order to equip it for all the work which it is capable of handling. Furthermore, no better illustration of the nicety with which it can be controlled, and the delicacy with which its effect may be localized is possible, than in the mere statement of its use in cutting metals. For this purpose a flat flame is used, which is directed against the metal gently at first, and with increased pressure, the apex of the cone thus being extended into the kerf as the metal is fused, until a cut has been made completely through the material. When finished, such a cut is hardly wider than the kerf of a common saw, and the sides exhibit a smoothness and uniformity which is almost unbelievable.

In general service, the blow-pipe is used not simply in repair work, but in plugging blow holes and welding flaws in expensive castings, in regular welding operations, where great economy is found, and in the working of sheet metals in general where the elimination of soldered and riveted joints is at once economical, and extremely satisfactory from every point of view. An

interesting item of its development, is the production of "Epurite," a substance when brought into contact with a generator similar to that used in the production of acetylene gas from calcium carbide. The simplification of the process and reduction in operating costs has been brought about, among other things, has made possible the successful commercialization of the oxy-acetylene furnace.

Apstein Produces a New Plug.

David Apstein, Bridgeport, Conn., who markets a variety of such single tube repair articles has just brought out something new in the metal-rubber plugs—an oval shaped plug with a swivelled head, the swivel being the newest feature. The



threaded stem is provided with a cutting end for enlarging a small puncture sufficiently to admit the plug. The shape of it also provides a thumb handle. When the interior and exterior parts of the plug are in place, the metal stem is, of course, broken off.

To Employ Aluminum Brazing.

Should expectations be realized, and there seems every reason to believe they will be, the working and treatment of aluminum will receive a much needed impetus. Possessing as it does the qualities of lightness, toughness and general adaptability to a remarkable degree, the chief drawback to its use has been the fact that heretofore it was impossible to braze it or repair it with any degree of satisfaction, a broken or ruptured part necessitating replacement with an entirely new casting.

J. A. Belin, well known in New York's automobile circles, has been, however, working for several years on a process which he has just disposed of to the Allyn Brass Foundry of Cleveland, Ohio, after a series of exhaustive experiments. These have been carried on by the Allyn Company, and as a result castings produced by the process will be marketed for the 1907 trade. While the process cannot be protected by patent, it is claimed to be most difficult, if not impossible, of analysis; and the Allyn people have bought it and will employ it on a royalty basis.

SEMPLE'S SUCCESS PHILOSOPHY

Talk to Retailers Concerning Their Problems—Fighting Catalogue House Competition—Law of Compensation.

"The Lord helps those who help themselves," was the subject of an address by F. J. Semple, vice-president of Simmons Hardware Company, St. Louis, recently delivered at a retail hardwaremen's convention, in the course of which he said:

"Experience and observation have convinced me that this world is built on the law of compensation—that we all get just about what is coming to us. We hear a great deal about this man being lucky and that man being unlucky, and while at first sight it does seem as if the one carried a rabbit's foot and the other a hoodoo, yet if you simmer it down and look into it carefully you will find that certain things happen to a man simply because it is natural that they should happen; that he is lucky because he has ambition, determination and energy, because he is farsighted and has perseverance, and that the other is unlucky because he is lazy—"follows the lines of the least resistance"—and is inclined to sit down and wish for things rather than to go out and hustle for them. We cannot hope to get anything in the world worth having without paying the price for it.

"If we want anything in this world and are willing to sit up nights and work for it—concentrate our mind on it—scheme and hustle—we are liable to get it, provided we do not ask for the moon or the world with a barbed wire fence around it. It is the only the Trusts in these days that get the impossible things, and even they seem to have a hard time to hold them.

"If there is anything that needs to be impressed upon the retail dealers at the present time it is that they should help themselves by becoming more intelligent in the conduct of their business—by learning the value of their time—by trying to make their time profitable to the highest degree. Never was competition so strong as it is to-day; we have it from without and within; both at home and abroad, in the sense that catalogue houses give us a great deal of competition.

"To my mind there is nothing easier than to meet catalogue house competition, but it requires personal effort, personal touch and extreme watchfulness. If I were doing a retail hardware business and there was a party within my reach who ordered goods from a catalogue house I would try to find out what he bought. I would take from my stock something similar but better in quality. I would take it to him, no matter what the cost might be in the way of time or trouble, and show him mine; show him why it is better; appeal to his loyalty to patronize home industry, and I

would offer it to him very cheap, doing all I could to dissatisfy him with his catalogue house purchase. This can be done very easily, because it won't cost you anything to offer your goods cheap, and if perhaps he should take you up and buy, let him have it cheerfully; take it just as you would a dose of nauseous medicine—that is to say lick the spoon after you have taken it and look pleasant.

"The old saying that 'Goods well bought are half sold' is entirely obsolete. It takes salesmanship to sell goods and salesmanship is now classed as a science or profession. I believe merchants should encourage traveling salesmen to give pointers to their clerks as to how to sell goods and how to sell those that are most profitable. It is far better that your clerk should make \$1 for fifteen minutes of his time, which it takes to sell a hand saw on the average, than it is to make 50 cents selling some other kind of a saw, which does not pay as good a profit. The selling end of a retail business is where the profit is made, and for this reason every merchant should be exceedingly careful to improve in as far as he can the selling ability of his clerks."

About the Trade in Turkey.

Lack of good roads is responsible for the falling off of sales in Smyrna, explains Consul E. L. Harris in his report. The first bicycles were imported into Smyrna in 1892, and for some years there was a brisk trade, but latterly the sales have fallen off, and at the present time, perhaps not more than 250 bicycles are sold annually. In describing the conditions, the American Consul writes:

"The decrease in the sales is accounted for by the condition of the streets in this Turkish city, which are not especially adapted for bicycles, while in this country there are practically but two roads which are fit for the purpose, namely, those running to the suburban towns of Bournabat and Boudja. It is probable, however, that steps will soon be taken to improve the condition of the roads in the surrounding country. Should this be done there will probably be an increased demand for bicycles. The favorite machine is a high-g geared free wheel selling at from \$30 to \$40. The import duty is 11 per cent. The machines usually sold are of English or German manufacture. The small tools used in repairing outfits are mostly American. Recently motorcycles have been introduced and it is expected that there will be a considerable sale for them as soon as the condition of the country roads have been improved, as they afford an easy means of conveyance to the many towns of commercial importance which are not connected with Smyrna by rail."

"The A. B. C. of Electricity." Price, 50c. The Bicycling World Company, 154 Nassau Street, New York City. ::

BEGS FOR HIS BICYCLE RAILWAY

Boynton Asks Bay State Legislature for
Renewal of Charter for Big
Project—Spent \$1,000,000.

With his usual eloquent style, and impassioned delivery, Boynton, last week made his annual appearance before the Massachusetts legislature on behalf of his famous bicycle railway project upon which the sun still refuses to shine. He told how the globe might be girdled in one week, how passenger transportation could be reduced to one cent a mile, and finally how the emissaries of the railroad interests were blocking him at every step, and preventing the realization not alone of this great dream, but the garnering of the harvest more than due from the \$1,000,000 already spent in booming the monorail idea.

The particular difficulty now weighing upon Mr. Boynton's mind, is the renewal of the expired charter for a line extending southward from Boston into Rhode Island. Owing to lack of financial assistance, this road never came to be built, although it was duly authorized. Perhaps had he possessed more ability as a financier than as an inventor, he might have been able to screw enough capital out of the stock and to actually float the more tangible portion of the scheme. Not being good at the negotiation of bonds, however, the thing failed to materialize.

It is always good to hear the inventor of the bicycle railway dilate upon its advantages and benefits-to-be, partly because he possesses an unusual degree of sincerity and actually seems to believe most of what he says, and partly because he assumes the position of the man who is out of a job and thinks the trusts are to blame. Last time he appeared at the State House in Boston, he informed the legislators he had come from his deathbed to tell them what they were missing in not giving him the price of his niche in the Hall of Fame to start the railroad with, instead of reserving it to bolster up his memory when a future generation should be riding the rail sacred to his memory. This time he was in better health, and in addition to the regular program, permitted himself to take a lively little fling at "taxation without representation."

"The committee finds uncontradicted the statement that 1,000 engineers and 16 committees in the Massachusetts legislature have given their approval of the universal application of the single rail Boynton bicycle system," he said. "On this we have expended more than \$1,000,000, tested it thoroughly for six years, with 50,000 trains carrying hundreds of thousands of passengers up to a speed of 115 miles an hour.

* * * * *

"What harm can it do to have us connect

ities at a cent a mile? Will the people? Will it bankrupt theaven road? The population along lines of that road has increased tenfold and the freight 20-fold since it was established.

"Do you propose no relief to the crowded conditions of the Boston elevated to-day? What of this next tenfold growth? It is for you to say whether the crime of robbery against your citizens shall be continued in the interest of foreign syndicates who collect hundreds of millions of taxation without representation, who were given the control of Boston worth \$50,000,000 to Mr. Morgan when they pledged to give Boston the best and put our system on.

"I feel sure this legislature is with us and every man, woman and child in the state awaiting the advent of our swift, silent, absolutely safe trains with abundant room and private chairs at half-price to connect every town in Massachusetts with Boston in an hour, to connect the oceans in a day, and girdle the world beneath Behring sea in a week. Let the committee rise to the dignity of the occasion and aid me now that I have spent \$1,000,000 and the best years of my life to give the world this great boom."

Several years ago the first and only Boynton memorial track was built down on Long Island, near Gravesend, New York, and actually survived a brief period of operation during which time tremendous speeds were attained, and a few thousand people whisked along over the marshes at a rate which bleached their hair and actually proved great enough to outstrip the agile mosquito of that locality which hitherto had been able to keep up with anything going. Somebody got fly with the stock, however, the Long Island marshes started to swallow up the poor lone rail, and ultimately Boynton was forced to retire to Salem, Mass, broken-hearted and the butt of endless ridicule, as is ever the case with the man who is either ahead of or behind his time. Since his retirement, the annual pilgrimage to Boston and the State House has become a feature of the season, his calls being made about the time when the fringing out of the edge of winter suggests the advisability of breaking ground for the fence upon which to rest the rail for the fastest and safest and cheapest and best trains ever built to be rushed over to fame and to the final emancipation of the traveling public.

Lightweight Motorcycles from Abroad.

Practically all of the better known continental motorcycle manufacturers have brought out or are bringing out lightweight motor bicycles. The N. S. U. people are among the number, their lightweight being catalogued at 75 pounds, which includes a magneto. The machine is, however, rated at but 1¼ horsepower.

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THE BICYCLING WORLD



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NEW YORK, MARCH 2, 1907.

Census Figures Wrongly Construed.

Among the edifying results of the recently published statistics of the 1905 census, issued by the Department of Commerce and Labor at Washington, is the statement which is gaining not a little newspaper currency, that "bicycles have been driven from the market by automobiles." "The remarkable growth of the automobile industry and the decline of bicycle production" are alleged to be shown by the sums total given out by the department. As a matter of fact, however, the comparison of the respective movements of the two industries as measured during the interval 1900 to 1905, is totally unfair and misrepresents, not alone the state of the industry, insofar as the bicycle is concerned then and now, but also leaves it to be inferred that the decline in the status of the bicycle market is still progressing in the form of a dramatic and hopeless slump. Although the newspapers that give space to such damaging statements ought to realize it, they do not stop to consider that the bicycle and the automobile are things apart—that they are not in the same class and not fit subjects for fair comparison, and that the one has not, and never will

be, driven from the market by the other. There are many men who own automobiles who find real health and exercise on bicycles; there are many others who prefer bicycles to automobiles, and still others who prefer automobiles, who must, perforce of circumstances, be content with bicycles, and this state of affairs will continue to the end of time.

It is an actual fact which the figures cannot bring out, however, that for the past two years, the bicycle market has been appreciating at a rate which cannot be construed as anything but healthy, and that the forecasts for the coming season are more promising, and the indications of business in excess of anything done since the years of the "boom" better than they have been at all since that eventful period.

The chief offense in connection with statements such as these, however, comes in the comparison of the figures of potential capitalization at the time of the boom and later, when the recovery from its spasm of over-production is hardly more than complete, as representative of the power of the market in both cases. The signal characteristic of the boom, is the feature of over-production. Hence, the capital invested during a period which is recognized as being one of inflation, is in no wise a criterion of the market, nor is the actual and unknown state of the market at such times, in itself a true criterion of the actual worth of the industry, since it responds at all times to the stimulus of the stuff of which booms are made. Similarly, during the reaction, surviving makers are relieving the pressure by keeping behind the demand, rather than anticipating it, and so those returns are biased by an error which militates against the other side of the balance. Actual growth can be demonstrated only by comparisons taken from periods covering a long term of years, and in no other way.

Considering the fact that such conclusions are recognized as being unjust and untrue, insofar as present conditions of appreciation or depreciation in market potentialities are concerned, it should be made a part of the duty of the manufacturers' publicity bureau to correct and amend such items at the earliest possible opportunity and to "nail" them wherever they appear. It is true that it less powerful to-day that it was five or six years ago. Yet is it not true that the bicycle industry is declining to-day, but quite the contrary. Such a plain unvarnished refu-

tation of the version to which exception must be taken by all who have the welfare of the bicycle at heart, is news to a great proportion of the reading public, and genuine truth besides.

As a Cure for Consumption.

After mature deliberation, the dictum of the Tuberculosis Congress, held in Atlanta, Ga., last week, was that three important desiderata were to be sought in the eradication of the insidious "white plague," namely, fresh air, moderate exercise, and deep breathing. These three simple essentials to the normal life of the healthy human being, easily within the reach of all, independent of their condition in life, are held up thus as being the chief requirements in the cure and suppression—and, perforce, the prevention—of that terrible disorder. Furthermore, and as of more than passing importance, the moderate and consistent use of the bicycle was recommended as being among the most satisfactory methods of gaining the required end. Such an opinion from such a source, should be enough, not alone to set men thinking, but to develop action, although, as a matter of fact, it is not wholly new.

It is an old, old story, that of the way in which the use of bicycles stimulates the flow of blood at once by breaking up the tiny muscle cells, and thus demanding more blood in the extremities of the body, to reach which it must flow through the whole system; of the way in which it also stimulates the flow of blood by arousing the interest; and most important of all, how the deep breathing which it enforces, scavenges the sensitive tissues of the lungs of the filthy accumulations of hours or days of confinement, and by generating more vital blood completes the oxygenation of the whole system, thus increasing at the same time the quantity and quality of the blood in every part. All this has been told and retold until the telling is like the recitation of a well-conned lesson. And its truth and importance are lost to view simply because it has been told before and because it is no longer new.

Yet in this very tale already well told many times, is the germ of life to the weary and clogged constitution whether its own particular plague be white or black, ringed, striped, or spotted. Health, generally and specifically, is scoffed at, its votaries ridiculed, and its benefits denied by all who possess it in generous measure. Equally as well is it sought with

pathetic and tireless earnestness by all to whom it is denied. But the point which dealers miss along with those who affect to disdain the road to health, is that the old story and its application is of vital interest to the countless hordes of "invalids" who are not sick and of the sick who conceal their woes, that the millions of dollars spent yearly in medicine and doctors' fees, might be diverted in part to the uses of the industry and in part turned aside to the savings bank, or the tailor, or whatever road lies next the road to health in the average mind, and that this might be accomplished simply by preaching again and twice more the sermon whose text is the one word "health." As a consumption cure and as a remedy for practically all other ills there is nothing at once so convenient and so efficacious. The wonder is that the truth is not realized by more of those who seek out health resorts, there to dawdle afoot or to lounge in lazy-back carriages, with never a deep breath or a warm surge of blood during their stay at the resort.

Even though the amateur cyclist makes no pretense of doing all or even the greater part of his own repair work, there is almost certain to be some place or other, maybe a corner of a bench, maybe only a shelf over the kitchen table, where accumulate from time to time, the various parts which go to make the cyclists' little treasure trove. These odds and ends of tire tubing, tubes of cement, odd nuts and bolts, a spare wrench or two, possibly an old saddle, a broken lamp, and a baker's dozen of other trifles, are as dear to him as the very machine which gave them being, and are valued as priceless treasures. No need to ask the reason for this treasuring up of cracked and broken toys, the answer always is the same, and points out that sometime they may come in handy. But however that may be, when they are needed, they are certain to be needed very badly, and for that reason, if for no other, it is well that they should be kept in orderly condition, the metal pieces clean and free from rust, the bits of rubber apart and so clean, the tools separate from the things which more properly come under the classification of stock, and all in complete and unfailing arrangement. In this way, the home repair shop becomes a source of pride to the owner and a positive aid in time of need.

HINTZE PILES UP 20,000 MILES

New Yorker Captures Both Mileage and Century Medals—Early Leads Long List of "Also Rans."

When for several successive years riders living in sunny southern California succeeded in winning the mileage and century competition promulgated by the Century Road Club of America, some riders in the East who had worked hard to win the coveted medals but had failed, made excuses somewhat in this manner:

"It's no use for an Eastern rider to try and win; he doesn't get an even break with the riders in southern California. Here we only have so many months in the year that the weather permits us to ride while they can ride all winter."

That excuse will not be allowed again, because Herman H. Hintze, an Eastern rider, living in New York City, has won the highest honors in both competitions. He not only "copped" them with bells on, but piled up almost twice as much mileage as either of the two previous California winners. During 1906 Hintze, who is a watchmaker, rode 20,292 miles, and altho this is not the record for a year's mileage, it is, nevertheless, a remarkable performance for a man that had to attend to business at the same time. He rode 139 centuries during the year, including 5 triple centuries and the same number of double centuries.

In stature Hintze is small, but his size is not commensurate with his ambition, and he can jog along at a steady gait for days without tiring. The bicycle that he used in accomplishing his desires was a Reading Standard.

Harry Early, Bayonne, N. J., who is treasurer of the Century Road Club, was second in both the year's mileage and centuries, and although he did not cover nearly so much or so many as Hintze, his was a good performance, and bettered the records of both previous winners. Early's mileage totaled 13,220, and he rode 114 centuries. Early does railroad night work and he has lost considerable sleep by stealing from his rest hours to ride for the medals he did not get.

The list of those who reported three or more centuries is as follows:

1. H. H. Hintze, New York, N. Y....	139
2. Harry Early, Bayonne, N. J.....	114
3. Andrew Clausen, Chicago, Ill.....	53
4. A. H. Seeley, New York, N. Y....	37
5. F. I. Perreault, Malden, Mass.....	33
6. F. E. Mommer, New York, N. Y..	30
7. H. H. Wheeler, Pomona, Cal.....	29
8. Emil Leuly, W. Hoboken, N. J....	25
9. E. G. Grupe, Brooklyn, N. Y.....	24
10. A. D. Rice, Winthrop, Mass.....	18
11. T. S. Floyd, Winthrop, Mass.....	13
W. E. Thompson, Brooklyn, N. Y.	13
12. F. H. Peterson, Newark, N. J.....	9
13. H. E. Fischer, W. Hoboken, N. J..	8
Fred Pfarr, New York, N. Y.....	8
J. W. Hedden, Brooklyn, N. Y....	8

14. J. H. Cornell, New York, N. Y.....	6
H. E. Grupe, Brooklyn, N. Y.....	6
N. O. Tarbell, Lake Geneva, Wis..	6
R. S. Campbell, Brooklyn, N. Y....	6
15. H. B. Hall, Brooklyn, N. Y.....	5
A. G. Armstrong, Brooklyn, N. Y..	5
16. Chas. F. Hansen, Jersey City, N. J.	3
W. Furze, Jersey City, N. J.....	3
Jos. Noe, Jersey City, N. J.....	3

Total number of centuries reported during year, 619.

Multiple Centuries.

H. H. Hintze, 5 triples and 5 doubles; F. I. Perreault, 1 triple and 4 doubles; Harry Early, 1 triple and 3 doubles; Andrew Clausen, 4 doubles; F. E. Mommer, 3 doubles; C. F. Hansen, Benj. Evesson, A. G. Armstrong, A. D. Rice, and A. H. Seeley, 1 double each.

The mileage "fiends" and the result of their "fiendish" endeavors, is given below:

H. H. Hintze, New York, N. Y., 20,292; H. Early, Bayonne, N. J., 13,220; H. H. Wheeler, Pomona, Cal., 6,605; F. I. Perreault, Malden, Mass., 5,788; Thos. W. Davis, Peoria, Ill., 5,503; A. H. Seeley, New York, N. Y., 5,269; F. E. Mommer, New York, N. Y., 4,034; J. H. Clowes, Paterson, N. J., 3,691; H. E. Grupe, Brooklyn, N. Y., 3,360; E. G. Grupe, Brooklyn, N. Y., 3,139; N. O. Tarbell, Lake Geneva, Wis., 2,832; Fred Pfarr, New York, N. Y., 992; S. E. Nylander, New York, N. Y., 278; W. J. Hampshire, Los Angeles, Cal., 222.

The total number of miles ridden during the year was 75,225.

Acrobatics in a Skating Rink.

Louis Mettling, the "Flying Schoolboy"—he still likes to be called that, because he is "not like these common bicycle riders"—and Elmer J. Collins, the young rider who gave promise last year of becoming a crack stayer, had a match race in the roller skating rink at Lynn, Mass., one night last week. It was not very successful, however. It was intended to be a five-mile pursuit, but both Mettling and Collins fell so many times that the spectators got disgusted. The manager called the race off and substituted a mile match. All then went well and Mettling won by a half wheel's length, Collins injuring his chances by bumping against a flag stick during the eighteenth lap.

Motorcyclist on Olympic Committee.

Motorcycling has been honored by a place on the American Olympic Games Committee of 1908, of which President Roosevelt has accepted the honorary presidency, and James E. Sullivan, president of the Amateur Athletic Union, is the active chairman. R. G. Betts, the head of the Federation of American Motorcyclists, is the representative of motorcycling who has been appointed a member of the committee. The games will occur next year in London.

Massachusetts Kills the Lamp Bill.

Bicycles and horse-drawn vehicles will not have to carry lamps in Massachusetts, after all. Although no opposition developed at the public hearing on the bill which sought to achieve that end, it was promptly "killed in committee."

N. C. A. IN FRUITFUL SESSION

Junior Championship Is Created, Road Race Control Taken Over, and 13 Shamateurs Given Cash Label.

For the first time in a considerable period the National Cycling Association really "did things" at an annual meeting. The "doings" transpired at the 1907 session in Hotel Bartholdi, New York City, Thursday night, 28th ult. Perhaps the most important item transacted was the establishment of a "Junior Amateur Short Distance Championship" as suggested by the *Bicycling World*. Among the other "doings" was (1) The striking of a blow at the practice of amateurs receiving cash or orders for merchandise in lieu of prizes and the giving of it by promoters because it is less trouble than providing prizes, (2) The assumption of the control of road racing, and (3) The turning of a batch of leading amateurs into the professional pasture.

The matter of the Junior Championships was practically the first business taken up after the meeting was formerly opened, Chairman Kelsey of the Board of Control at once moving that a series of races to be termed the "Junior Amateur Short Distance Championships," and consisting of one-quarter, one-third, one-half, and one mile races, should be decided annually, the races to be awarded to the school or organization that, in the opinion of the Board of Control, is qualified to conduct them. After some discussion as to whom these races would be open, and after it was decided that a weight and size limit would be instituted, to be determined after a conference between Mr. Kelsey and James E. Sullivan, President of the Amateur Athletic Union, F. L. Valiant, president of the Roy Wheelmen of New York, who acted as proxy for the Revere Beach (Mass.) track, seconded the motion, and it was passed. This championship will be settled by the point system now used by the N. C. A., in deciding National championships, and the N. C. A. will provide for suitably inscribed medals for each race, and give the gold medal to the winner of the championship.

Sufficient evidence was shown that thirteen amateurs had competed for cash prizes and the "unlucky thirteen" riders were transferred to the professional class. Of the number two were from Salt Lake—Jack Hume and Fred West, who have been breaking all the amateur records and winning all the "money" at Salt Palace saucer. Hume is a college athlete and the "crack" runner on the University of Utah's team. He has long been suspected of being "unclean," it is stated, and efforts have been made by the college authorities to get evidence against him, but without success. The others were all from this vicinity,

and those that the *Bicycling World* has intimated all along would be transferred at the annual "wash." The list is a most representative one and consists of the following:

Charles Mock, Louis J. Weintz, Arthur R. Wilcox, Walter Raleigh, Fred T. Warner, Franklin Fisher, Arthur E. Rhodes, Victor J. Lind, John Eubank, Carl Erricson, and Otto C. Brandes. The clubs affected are the Cork Pullers, Century Road Club of America, Edgecombe Wheelmen, Roy Wheelmen, New York A. C., National A. C., and the Park Circle Club.

The evidence which led to the transfer of these men proved that they had been racing for cash pools on the roads of Long Island during the past year, and was so complete that even the stakeholder is known. Pretty good proof that one of them had also "realized" on a prize he had won in the Irvington-Milburn race also was in hand.

In connection with this a warm discussion was brought about concerning some of the illegal practices that have been employed and several cases of "ringing in" novice events will be thoroughly investigated. It is expected that the offenders will be severely dealt with.

The blow to "shamateurs" who have been in the habit of accepting cash for prizes took the form of a resolution introduced by Mr. Valiant, as follows:

Resolved, That the Chairman of the Board of Control be instructed to notify track owners and race promoters that the giving of cash or orders for merchandise to placed men in amateur races, constitutes a gross abuse of the amateur rule, and to notify them that proof of such practices will carry with it a denial of future N. C. A. sanctions, and also, be it further

Resolved, That race promoters be recommended to return to the practice of giving properly inscribed prizes, the acceptability of which is the best proof of genuine amateurism.

It has been reported on good authority that the amateur riders at Salt Lake have been receiving cash and orders for merchandise and it has been said that Mr. Powers has given amateurs money for riding in the Garden. Whatever he may have done in the past Mr. Powers said last night in the meeting that several of these "shamateurs" had asked him for money for riding races in the Garden during the last six day race, but that he had refused them, and had sent a check in payment of the prizes to Dieges & Clust. The prizes had been distributed by his stenographer, he added. The resolution was seconded by Mr. Van Dyke and passed.

Mr. Valiant then suggested that it would be a good plan for race promoters to include class races for professionals when the professional ranks should be increased to an extent where this would prove practicable. The track owners present heartily agreed that class races would be interesting and provide competitions for those not in the Kramer or Lawson class, and stated that they would be only too glad to

provide such races if the pro fields are swelled to an extent to warrant it.

The matter of road racing was brought up by President Adece, who explained that several clubs had importuned the N. C. A. to take up the control of road racing, and that Chairman Kelsey had felt the club pulse by communicating with all of the leading clubs, asking for an official expression of opinion. Letters from the following clubs, who agreed to co-operate with the N. C. A. in the work in view, were then read: Crescent Bicycle Club, Baltimore, Md.; Tiger Wheelmen, New York City; Newberg Wheelmen, Newberg, N. Y.; New York A. C., New York City; Pellet Wheelmen, New York City; Stockton Wheelmen, Camden, N. J.; Roy Wheelmen, New York City; National Turn Verein Wheelmen, Newark, N. J.; Long Island Division C. R. C. A., Brooklyn; Edgecombe Wheelmen, New York City, and West Harlem Wheelmen, New York City. The Ramblers Bicycle Club of Buffalo, said they were satisfied with present conditions in their vicinity. Chairman Kelsey then outlined the idea and Mr. Powers moved that the National Cycling Association assume the control of road racing and that the formulation of plans for its government be left to Chairman Kelsey with full power to act. The motion was seconded by Mr. Valiant and passed.

The Century Road Club Association was elected to membership and its delegate, Paul Thomas, was installed in the chair when Mr. Powers moved that the secretary cast a ballot for the re-election of the present officers, with the addition of G. A. Needham of Brooklyn, and N. E. Turgeon of Buffalo, on the Board of Appeals, to fill the vacancies caused by the death of "Walt" Wilson of Buffalo, and the resignation of Chairman Abbot Bassett of Boston. The motion was carried and these will be the officers for the present year:

President, Daniel M. Adece; first vice-president, C. B. Bloomecke; second vice-president, Patrick T. Powers; secretary, R. A. Vandyke; board of control, R. F. Kelsey, chairman, New York; District B. Dai H. Lewis, Buffalo; District C, R. Klosterman, Baltimore; District D, Augustus Castle, Atlanta, Ga.; Rocky Mountain district, John Halvorsen, Salt Lake City. Board of Appeals—M. L. Bridgeman, New York Athletic Club, chairman; Samuel A. Miles, Chicago; Albert Mott, Baltimore; George A. Needham, Brooklyn, and N. E. Turgeon, Buffalo.

Those present were P. T. Powers, Madison Square Garden; C. B. Bloomecke, Vailsburg board track; F. L. Valiant, Revere Beach track; Paul Thomas, Century Road Club Association; R. A. Van Dyke and R. F. Kelsey. These tracks were represented by proxies: Baltimore (Md.) Coliseum, Atlanta (Ga.) Coliseum, Salt Palace saucer, Salt Lake City, Utah; Sixty-ninth regiment and Seventy-fourth regiment, Buffalo, N. Y.



March Dreams of the Real Enthusiasts.

STANLEY BOWMAR OFFERS ADVICE

Answers Some Questions as to Trans-Continental Touring—Cost and Necessary Equipment.

Since my journey from Buffalo to the Golden Gate I am often asked, Is the transcontinental tour worth while? Others write to enquire how much the run costs. They are pretty hard questions to answer, both of them, for ideas differ. It may be possible, however, to give a few hints and drop a suggestion or two that may be of some little assistance to those who have done no extensive cross-country riding.

To the would-be record breaker I have not, of course, one word to say. He is on an altogether different footing. To begin with he is an expert, provided with a specially built machine, and the expense part of the problem has to him no concern, for the makers of the machine ridden sign the checks. The on-time man is out to break his neck or the record, and he who sets out to appreciably reduce L. J. Mueller's splendid time, is just as apt to kink his neck as he is to break the record.

But what of the fellow on pleasure bent? Well, that depends on what the word "pleasure" means to him. To one who is content to do his exploring on street cars and to accept, as reliable, impressions of people and places gotten from the blurred windows of a Pullman, and who is afraid of a little hardship and hard work, the cross-country ride would be a dreary and miserable affair, but to one who has a rambling propensity, a love of adventure, who wishes to see for himself rather than take everything for granted, and is prepared to pay a reasonable price both in hard cash and steady, heavy work for the benefits of such a so-called "wild cat" scheme, the run from coast to coast is a splendid investment every way you take it.

It goes without saying that for a long, lonely ride "in the wilds," it is just as well to have a machine with which you are thoroughly familiar. The experience of a long tour is a pretty good teacher, but the deserts are mighty poor, if spacious, workshops. A two or a four-cylinder machine would probably be two heavy and cumbersome when the inevitable trundling had to be done.

See that the engine has plenty of clearance for rough, very, very rough roads, and that the pedals, at lowest, are not too near the ground. Long pedal cranks are an abomination for touring. If there are any boulevards west of Denver, I failed the find them, and I thanked my lucky stars that I had my pedal cranks cut down to five and a half inches.

A piece of common soap, useful to stop gasoline leaks, a small hammer, and a handy soldering outfit, should be carried,

beside a full complement of tools—serviceable tools, not cheap things, good only to look at from a distance.

As far west as Denver the roads are fairly easy on tires, and an outer cover is not likely to be required, although it would be well to carry an extra inner tube. At the Queen City the various tire companies are represented, and one's wants in this direction can be well supplied, at reasonable rates. You know, by the time a transcontinentalist gets to Denver, peo-

ple is over the Red Desert, between Rawlins and Rock Springs, 130 odd miles. In the sheep herding season, however, there is a small intermediate store at Wamsutter, where the gasoline tank can be filled.

Although one sets out on a four thousand mile ride to see something less hackneyed than cities (in plenty everywhere), Salt Lake City, like Denver, should not be missed. Take a side run from Ogden. Utah, sheltered by the surrounding mountains, is a beautiful garden, famous for its



STANLEY BOWMAR IN THE SHADE OF AN OLD ORANGE TREE IN CALIFORNIA

ple believe that he "means it," and treat "the poor, misguided devil" well.

For my own part, even west of Denver I would never again carry an extra outer tire. The one I hauled along was a positive nuisance, heaven only knows; when it came to trundling through sand up to one's eyebrows, it weighed a heavy-weight ton. The cayotes can bear me witness.

The better way would be to put a new tire on the rear wheel at Denver, if necessary (which is not likely); if not, ship ahead with one's grip, batteries and cylinder oil. Crossing the Rockies, between Cheyenne and Laramie, tire trouble is apt to crop up, just as it is bumping the tires through Nevada, and over the rocky Sierra Nevadas.

A machine for touring should have at least a two-gallon gasoline capacity and not less than a quart of cylinder oil. As far west as Denver supplies can be picked up at small stores, but west of there, for batteries and cylinder oil, the only safe way is to utilize the broad shoulders of the express companies. The longest distance without a store that sells gasoline

crops, but its best crop of all is—children; and the fact that Salt Lake City is the Mormon's chief city and the home of their famous tabernacle, gives it an especial interest.

Side runs, of course, take one's exchequer, which reminds me of the expense account. Reckoning in runs to Denver and Salt Lake City, the distance covered from coast to coast would probably be in the neighborhood of four thousand miles, and, taking it leisurely, fifty miles a day would be a good average, not counting halts in these cities. This would make a traveling time of eighty days, at an estimate of \$3 a day, about as little, counting all expenses, as it is possible to do the run pleasantly on, we get an expense account of \$240. Add to this another \$60 for contingencies and it makes a round sum of \$300. One would not necessarily be extravagant to exceed, almost double, this amount. On the other hand a strict economist could, with luck, keep his expense below the "limit." Mr. Bassett, secretary of the L. A. W., gave me the name and address of a young fellow who in 1905 cycled

to the Pacific coast, working his way. My own experiences along this line are not very encouraging—it is too big a strain on one. Long tours in new country, whether made on foot, on a bicycle, or a motorcycle, are always fatiguing, though never dull, and to get out of them the maximum amount of pleasure and profit, one should have at least a modest amount of cash. Those of us who start out on long excursions with fairly empty treasuries, as some of us sometimes do, clear the deck for action—we know we are in for any amount of hard work and lots of scheming. It is not advisable for a new chum, without friends, to start touring, unless he is prepared to pay in extra work the big fees for each term at the University of Hard Knocks.

"Are you insured against accidents?" some one asked at Cheyenne. Accidents be bothered! I had long ago become accident proof. Perfect health is one of the fine features of a hobo tour. The first few weeks one may be troubled with colds (I was right out to Omaha), but one's lungs become so strengthened that soon nothing comes amiss, rain, hail or sunshine—snow and frost chucked in. Long before Frisco is reached, one is good for twice the amount of work, and it is astonishing how as your constitution "braces up," the eyesight improves. While on the subject of colds and health in general, it may be worth while to mention that the "cold"

winds that usher in the winter in Nevada start any time in October, and it is, therefore advisable to get on the warm side of the Sierra Nevada mountains not later than the end of September. The cold October winds on the deserts are as biting and pitiless as the high, dry desert air is exhilarating on a fine, sunny morning.

Is the cross-country tour worth while? Of course it is. What is the use, where is the reason of our shouting ourselves hoarse over our National anthem, whether it is American, English or French, when we know nothing of our country, except of one small corner? Won't you Americans, when you have leisurely crossed your country, studying its people and seeing its wonderful sights—won't you appreciate all the more those beautiful verses, written by Dr. Henry Van Dyke to "broaden out" your own glorious National Hymn?

"I love thine inland seas,
Thy groves and giant trees,
Thy rolling plains;
Thy rivers' mighty sweep,
Thy mystic canyons deep,
Thy mountains wild and steep,
All thy domains;
Thy silver eastern strands,
Thy Golden Gate that stands
Fronting on the west;
Thy flowery southland fair,
Thy sweet and crystal air—
Oh, land beyond compare,
Thee I love best."

Oh, yes, you will. After being alone on the deserts, more lonesome and fascinating than the "wide, wide sea," the sound of the myriad hammers that are building a brighter and better San Francisco will have to you a fuller meaning.

"Is the cross-country run worth while?"—a thousand times worth while. Whoever starts out in the right spirit—to take everything as it comes, and to make the best of everything—will always look back on his experiences as some of his brightest memories.

STANLEY BOWMAR.

Philadelphia Police's Illegal Tags.

The F. A. M.'s campaign to relieve motorcyclists from some of the burdens imposed by the automobile law, which would be continued by the amended measure that is pending, has resulted in the discovery that the Philadelphia motorcycle police are carrying small tags of their own creation. All other motorcyclists are compelled to carry the two big cast-iron number plates that are provided by the state. The 30-mile-an-hour clause in the new bill, which was the prize which the automobilists sought, has aroused so much opposition, that if the bill passes at all, it will be in a considerably altered form.

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FROM BALTIMORE TO THE CAPITOL

Two Routes, One of Which Gives Cause to be Remembered—Converted This Cyclist to Good Roads.

"If any one wants to become a convert to the cause of good roads," remarked a rider who spent a part of last summer in Maryland, "let him take a trip from Baltimore to the nation's capital over what is known on the map as the Washington Pike, and he will get an object lesson that will bring home to the veriest tyro their necessity and the great good yet to be accomplished in that field.

"It is an impressive lesson, even to the superficial observer to see the condition of one of the alleged highways connecting the two cities, and that the national capitol should be connected with the first city of importance to the north by such an apology for a road doesn't reflect much credit on our method of doing things. There may be some excuse for a lack of roads in the more sparsely settled part of the country, but in the older communities it is simply inexcusable.

"But I started out to tell you of my experience on this trip.

"I left Baltimore early in the morning, expecting to make the trip in about six hours at the outside, for the distance was only 38 miles, and while I was told I should find some sand, I did not expect it to amount to much. In addition to this the road is called a pike, a term supposed to be synonymous with fairly good going; and by the way, it is surprising when you come to think of it, the amount of ignorance regarding road conditions that exists amongst people who actually live along or near them and who would naturally be supposed to know something about them.

"Well, for the first 6 or 7 miles, the going was fairly good, the road being of macadam and not very much worn, though the grades were stiff. Then my troubles began. Sand to the right, to the left, to the rear, and unlimited stretches of it in front. I decided that I hadn't seen quite so much sand since my last annual visit to the seashore. However, when I start out to accomplish a thing, I try to stick to it and I mentally vowed to accomplish my goal, no matter what the obstacles might be, so I kept on pushing through sand which became deeper the further I went; in fact, in many places it was so bad that I couldn't even coast down hill, and as for going up them, it was simply a case of walk.

"In my younger days I recall that the geographies told us that the eastern part of the middle and south-Atlantic states was generally of a rolling surface, and that the nearer one got to the seaboard the

more level it became, but I guess that the geographer had failed to explore very carefully that part of the country, or perhaps the surveyors who laid out the road had a preference for hills, for I didn't find any roll to speak of, in fact, it was nothing but a succession of steep ascents and descents.

"It may be that mountain roads are full of sudden turns and twists, but as a complicated pattern of curves my route that day would be hard to beat. One redeeming feature of the whole matter was that there wasn't much traffic and if I went around a turn suddenly I didn't worry much about coming face to face with a team. Scenic beauties to appeal to one's artistic nature were wanting, and besides I was so busy trying to pick out good spots

water. As no one was in sight to enlighten me, I had to ride on without satisfying my curiosity.

"Perhaps two miles further, I again got into sand, and to make the matter worse I found I was on a corduroy road which was covered with just enough sand to make the bumps apparent and still leave it very hard to pull through, though it was on a slight down grade. Alternately walking and riding, I made, I suppose, on the average of about 3 miles an hour until I came to the worst spot of all, though spot is hardly descriptive enough, for it was a stretch of at least 3 miles, where in addition to the sand some bright person had conceived and carried into execution the brilliant idea of surfacing the road with slag, obtained from a nearby blast furnace.

"Conditions would not have been so bad had there been any attempt to break the slag up, but it had evidently been simply dumped on the road just as it came from the furnace, and varied in size from a small pea to lumps as large as my head. I don't know much about road building, but even to my inexperienced eye the amount of traffic on the road would not have reduced that slag to a condition to do it any good in any term shorter than 50 years.

"As a matter of curiosity I stopped and asked an old colored man, who was standing at the gate of a farm house, how long the stuff had been there, and he said "Deed, boss, it was heah befoh I come, an' Ise been heah 15 yeahs."

"Owing to the nature of this stuff I had to ride with a great deal of caution, for it was sharp enough and hard enough to cut a tire like a knife. I got through it without accident, however, and kept plodding through sand and up and down hill though these were not as steep as those I had to take on the first part of the trip, and there weren't as many sharp turns.

"About 10 miles from the capital the road began to improve and from there in it was very good, except through one village, where it looked as though they had mistaken it for a ten-acre field and had plowed it up to plant corn.

"When I got to the end of the journey you can gamble that I was played out and I made the return trip by rail, though my original intention was to ride my bicycle back by another route through Ellicott City, which I did afterwards, and over most excellent going.

"The state of Maryland has since passed a bill to construct a boulevard from Baltimore to Washington over the route that I took and I think that the work has already been commenced, but I don't think I will try that particular road again until the rebuilding has been completed."

"The A B C of Electricity" will aid you in understanding many things about motors that may now seem hard of understanding. Price, 50 cents. The Bicycling World Co., 154 Nassau Street, New York City. †

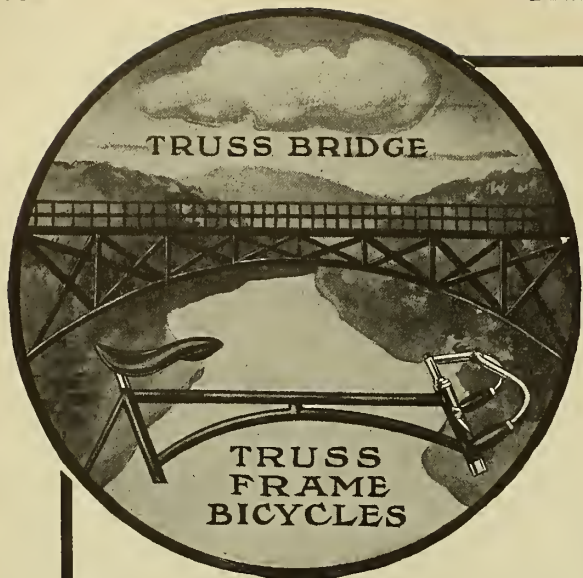


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on the road that it was impossible to pay any attention to anything else.

"After about 5 hours of this kind of work I finally arrived at a town called Laurel, about midway between Baltimore and Washington, and decided to rest and refresh a little. I judged, however, that if the going was as bad the last part of the journey as it was in the first, it would be wise not to tarry too long, so looking over my bicycle to see that all was right, I was soon started on my way. Before leaving I tried to extract a little information from a party of gentlemen of leisure who were congregated in front of the hotel to witness my departure, but beyond eliciting the statement that the road was 'fair to middlin' I did not have much success.

"I wheeled through the town at a pretty fair rate, but found a number of bumps in the road called in New England thank-you-mams, but I was somewhat puzzled to determine their necessity as the road was practically level and they were evidently not put there for the purpose of shedding



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IMPORTANCE OF LUBRICATION

Points to be Watched by the Motorcyclist
—Carelessness Costs Dearly—Effects
of Heat and Compression.

The vital importance of proper and timely lubrication to motorcycles cannot be too strongly emphasized and the would-be motorist should be firmly impressed by the necessity for giving systematic attention to the entire subject.

Experience is said to be the best teacher, although frequently very costly and it is generally better to get all the information obtainable in advance.

Pages have been written, printed and distributed by manufacturers, containing all sorts of advice, but the last word has not yet been said; for until the rider grasps the matter thoroughly, he cannot realize its important bearing upon the successful operation and permanent welfare of the machine. All instructions should be clear and comprehensible and the reason therefor plainly set forth in language which can be readily understood, as much otherwise valuable information is too often clouded by the technical terms frequently used by experts.

The maxim "Be sure you're right, then go ahead," should be taken to heart by the new motorcyclist.

The first hundred miles or so that a new engine is run is the time when the most particular attention should be given to the lubrication, for that is the period when the piston and rings are adapting themselves to the microscopic inequalities, always present in new cylinder walls and if there be no film of oil intervening, excessive friction ensues, causing extreme heat. The heat thus produced raises the temperature of the metals composing the piston and cylinder. The molecules of these metal surfaces, spurred into great activity by the rise of temperature, diffuse from the piston to the cylinder and vice-versa. If this diffusion does not completely interlock the two "seizing" has not fully taken place, but the surfaces, especially of the softer metal, have become scored.

A new motor under-lubricated will seize much more readily than one "well run in." Scoring and seizing are facilitated by high temperature, high pressure and close fitting. It is well to remember that a close fit at low temperature becomes a much closer fit at a higher temperature.

A suitable lubricant must therefore withstand the maximum temperature and preserve an unbroken film between the two sliding or bearing surfaces. If the engine is not properly lubricated when new—if it is run almost dry during its early use, the cylinder may lose its complete roundness and when it is too late, it will be found that the oil, then pumped in, leaks

past the piston, whereas when the cylinder was perfect, the rings would not allow enough oil to get past to do any damage—most of the oil that gets past well-fitting rings is partially evaporated and is almost completely burnt up.

Ruined piston-rings, to say nothing of scored cylinder-walls, will be the sure penalty of under-lubrication in the cylinder, and these must be replaced to get satisfactory running from the engine, in which piston seizure has taken place.

Rather run the risk of giving too much oil, particularly to a new engine, than too little; for over-lubrication can do no serious harm and none but what can be readily overcome. When the engine seems to be running at its very best, apparently perfect in every way, then is the time to think of fresh oil, so as "to keep up the good work," and not wait until conscious that the engine is laboring.

The cylinder is not the "whole thing" which requires such careful attention during the initial runs, for the lubrication of the entire engine system must take place and this is almost wholly dependent upon the proper circulation of the oil introduced into the crank-case. The wrist and crank pins, main shaft bearings, and gear operating the valves and contact breaker cams, must get their modicum of oil, distributed to them by the fly wheels and crank movement.

In the assembling and testing out of the motor, the adjustments of these different bearings were probably made sufficiently free, but the expansion under pressure and frictional heat frequently binds and seizes the metals before all the bearings assume their proper alignment under running conditions and some time must necessarily elapse before an engine "gets down to its bearings."

The various working parts outside of the cylinder and crank-case, can be more readily seen and surely attended to. If countershaft be used and friction device to eliminate shock in gear shaft or chain drive, each must be properly oiled or greased—as also the respective form of transmission. The free running of rear-wheel, without any impeding catch from coaster-brake arrangement is most important. The steering head and bearings of front wheel are not to be neglected and until these various bearing parts become well "run in," any excess of oil will not be great, can do no serious harm and is readily removed when cleaning.

There can be, however, too much oil carried into the cylinder, particularly after the piston has gotten comparatively free, and may lead to misfiring or entire stoppage of sparking, through the fouling of spark-plug. An over-lubrication, or too rich mixture of power-gas, or perhaps both, carbonizes a deposit upon the piston-head and in the combustion-chamber, increases the compression through reduction of space and sometimes by overheating in-

duces pre-ignition. A more gumming deposit also occurs from over-lubrication, causing the piston-rings to stick, which, interfering with their proper springing movement, decreases the compression. This same gumming deposit will often cause an inlet-valve (automatic) to stick in its seat, preventing suction of power gas.

The proportion of lubricant necessary to the cylinder is almost microscopic, but some must be there and rather in too great a quantity than none at all, but don't over-work "a good thing," it is unnecessary. Don't inject two or more charges every time the pump is used, do it oftener, but in smaller doses; avoid over-lubrication by substituting quality, as one pumpful of the best oil obtainable is worth much more than a pint of poor stuff; last longer and does more effective work.

Spark-plugs can be cleaned or replaced at small cost, inlet and exhaust valves scraped clean and ground in when pitted through burning, and an occasional flushing out with kerosene will quickly remove carbon deposited on piston-head, as also clean out the piston-ring grooves.

Partly burnt oil, passing out in the exhaust may sometimes clog up the small ports in the muffler and cause some back-pressure, which can be removed by boiling out the muffler tubes in a strong solution of soda. The oil that gets into the contact breaker case, can be removed by careful wiping and will not cause misfiring unless it has gotten on the platinum points which can be scraped, but oil attracts dust and dirt creates a greater resistance to the flow of current, consequently, a weaker spark is transmitted to explosive chamber.

Where the fly-wheels run close to the crank-chamber too much oil is likely to slow the engine down, through excessive pressure in the crank-case.

It is therefore apparent that although over-lubrication may cause temporary stoppages and delays, it is a much easier evil than under-lubrication. "Spare the oil and spoil the engine," is a pretty good motto to follow, but why over-feed a full stomach and thereby overwork the digestive organs, for the surplus quantity of oil must be ejected by the engine in some way?

Oil should not be pumped into an engine when there is any sign of blue smoke being ejected from the muffler, but this is not to be regarded as an invariable following of over-lubrication for some engines will take almost unlimited quantities without smoking, especially when the piston rings are tight.

The black smoke sometimes emitted is not due to excessive oil passing out in the exhaust, but comes from bad carburation and indicates incomplete combustion through improper mixture of power-gas furnished to the motor by irregular action in the carburettor.

Bad lubricating oil will spoil the most perfect engine that was ever made, and it

is only courting disaster to buy unknown and untried oils, because they are sold cheap. Use the oil sold or recommended by the motor manufacturer, until positively certain that there is a better grade procurable from other sources. Poor oil is dear at any price and the quantity value necessary for perfect lubrication is almost negligible, when compared with cost of new parts. Let merit and not price, settle the value of the oil, so necessary to the satisfactory and successful permanency of the motor. Seizing of a bearing or piston can always be traced to a failure of the lubricant to keep two metal surfaces adequately separated by a film of oil. A light oil lubricates, as well as, and sometimes better, than a heavy oil, but will not stand the heat, in air-cooled motors. The effect of heat on a lubricant is to reduce its viscosity and viscosity (adhesive stickiness of the oil) is that property, by virtue of which the lubricant forms a comparatively thick film between rubbing or sliding surfaces. Any lubricant quickly reaches the same temperature as the cylinder walls, and it is this factor which governs the choice of an oil, as piston-speed need not be considered.

A general impression prevails that an air-cooled motor is more liable to overheat in hot weather, but if an engine is going to overheat, it is my contention that it will do so whether the air temperature be 30, 70, or 90 degrees, and this overheating is due to imperfect circulation of air outside

of cylinder; defective carburation and improper combustion or lack of lubrication. The difference of 40 degrees or even 60 degrees in the atmosphere is hardly appreciable when compared with the temperature of the explosions inside, which are in the neighborhood of 3,000 degrees Fahr. The lubricant fortunately does not have to withstand the heat of the explosions, but the heat of the cylinder walls, averaging 250 degrees to 300 degrees Fahr., is quite sufficient for the best of oils to sustain.

Before taking a machine on the road it is better to warm up the engine on the stand, for a good bodied oil becomes very sticky when left standing, and there should be quite a quantity of oil in the bottom of crank-case, which must be got moving. Never run an engine long in the stand for it will surely overheat from lack of movement or draft in the surrounding air.

Used oil, or oil which has lost the greater part of its lubricating properties and become dirty through friction, should not be retained in the crank-case, for its presence there is positively detrimental to the welfare of the engine and it is well to get rid of same before introducing a fresh supply. At stopping places, open up the pet-cock in the drip pipe from crank-case and drain it out, while hot. Be sure to close pet-cock before putting in new oil and be sure to get in at least, one complete charge, before starting up the machine. This withdrawal of old oil is greatly neglected by

many riders, who thereby permit crank-cases to get so foul that there is hardly room enough to carry a sufficient supply for distribution by splash of fly-wheels, etc.

There is another value, moreover, to these frequent withdrawals and that is the knowledge that there is some oil there to withdraw, and in this respect, its presence is more welcome than the surplus that comes off the main shaft, or enters the contact-breaker case or is ejected from crank-case relief valve. E. W. CARRITT.

Rhigolene as a Fuel.

In these days when free alcohol is so much discussed some one is always coming along and relating how he ran on such and such a fuel when the needful supply of gasoline failed and could not be replenished easily. These tales mention everything from Scotch whiskey to acetylene gas, but one man comes up with the claim that he tried to get some fuel in a small country town and was unsuccessful until the local druggist unearthed from his back room a half dozen bottles of a liquid called rhigolene, which had been purchased some years ago for dentist who wished to use it to deaden pain during the process of extracting molars. He said it worked all right. The wonder is that it didn't perform stunts of all sorts for while a derivative of petroleum, it is so volatile that it will boil at practically the temperature of the body.

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The Dealer.

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The Cyclist.

"Please renew my subscription for the *Bicycling World*. Enclosed is the price. It's the best money I ever spent. The *Bicycling World* is worth all the praise anyone can give it."—Ralph Derbyshire, Fall River, Mass.

The Motorcyclist.

"I take a number of motorcycle publications, both foreign and domestic, but for practical information and real worth the *Bicycling World* has them all beaten to a standstill."—Clyde M. Clough, Davenport, Iowa.

THE BICYCLING WORLD and MOTORCYCLE REVIEW

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New York, U. S. A., Saturday, March 9, 1907.

No. 24

U. MAR 11 1907

TRIED TO MIX THE TWO TIRES

But the Attempt to Trade on Kokomo Reputation Leads to Exposure, Despite a "Guarantee."

That ever fragrant institution, the Manhattan Storage Co., has "broken out" in a new place but not in a new way. They are evidently still possessed of some of the antiquated stock of the odoriferous firm of Ephraim Bros., of Buffalo, which scored such a picturesque failure in which the so-called storage company was said to have been absorbingly interested. At any rate, they are selling, or trying to sell, a "Buffalo Special" tire which they are misrepresenting as "purely and simply Defender Special tires with a private brand on them." They even had the hardihood to "guarantee this part" in a letter to a Detroit dealer to whom they sold some of the goods.

The Detroiters became suspicious and wrote the Kokomo Rubber Co., who have lost no time in "nailing" the so-called storage company misrepresentation. They wrote the Detroit man and desire it generally known, that they have not made a Buffalo Special tire for more than two years and that neither that article nor any other specially branded tire was ever made of Defender Special stock or of any material as good. The Kokomo people give it as their opinion, too, that the Manhattan Storage Co. were fully aware of the facts when they made their assertions, which makes it appear that if the Detroit dealer is so minded, he has it within his power to make it interesting for the firm which in writing "guaranteed" what is proved to be not the truth.

Pope Returns to Motorcycles.

The Pope Mfg. Co. has again taken up motorcycles. Of course, the Pope people never wholly dropped them, but during the past two years they have not exploited them to an extent worthy of much notice.

Last fall, however, it was announced that they would seriously enter the field in time for the 1907 demand, but later the announcement was nullified by the statement that the Pope automobile interests had interfered with previous intentions. Within the last month, however, the motorcycle light has become so strong that the Pope Mfg. Co. has engaged H. B. Whitney, a motor engineer formerly connected with the Electric Vehicle Co., and who had previously designed a two-cylinder motorcycle, and he will devote himself exclusively to the development of a Pope power driven bicycle, which will not be ready for the market, however, until this fall.

Makers' Meetings Next Wednesday.

Although there was some talk of postponement, the meetings of the Cycle Manufacturers Association and the Cycle Parts and Accessories Association will occur in Buffalo on Wednesday next, 13th inst., as originally scheduled. The report of the joint cycle show committee is one of the interesting things on the card.

Leng Becomes a Corporation.

John S. Leng's Son & Co., the old New York jobbing firm, was this week converted into a \$100,000 corporation under the laws of the state of New York. The incorporators named are: G. E. Relyea, New York City; J. H. Richards, Cranford, N. J.; R. H. Hance, West Brighton; G. Hees, A. G. Cross, Brooklyn.

Diamond to Increase to \$4,000,000.

A meeting of the stockholders of the Diamond Rubber Company has been called for March 12th to pass upon a proposed increase of the capital stock—from \$3,500,000 to \$4,000,000.

Few Motorcycles at Boston Show.

Only two motorcycles are included in the official list of exhibits at the New England Automobile Show in Boston, which opens to-night. They are the Yale-California and the Crouch.

RETAIL OUTLOOK FOR JUVENILES

Big Business in This Branch—Advantages Attending Their Sale—Gilbert and Burgess Drop Hints.

That the average dealer does not appreciate the true worth of the juvenile bicycle long has been a matter of remark. He seems to consider it beneath his notice, if indeed, he ever gives it a thought of any kind. That there is good business to be done in such machines is fairly clear, but the bicycle dealers, generally speaking, appear strangely content that the demand should be met by others. Despite this indifference the number of juvenile bicycles sold has steadily increased.

"Since August 17 last," the other day said the level headed Fred C. Gilbert, who looks after the Pope Mfg. Co.'s department that deals with juveniles, "we have sold and delivered two-thirds as many juvenile models as we shipped during all of the preceding year. You must remember, too, there is not supposed to be much loing in the way of bicycles after June. This juvenile business has come to us without pushing and conveys its own significance. Its a branch of the business, too, which develops a new crop of riders and leads to "grown up" sales, and best of all, it comes during the holiday and vacation time when the demand for adults' machines is dull. The dealer would help himself not a little if he fully realized the facts."

A. G. Spalding & Bros., the New York sporting goods firm, are among those who have made the most of juvenile models and that their efforts have been worth while is confirmed by W. H. Burgess, manager of the Spaldings' bicycle department.

"The sale of juvenile bicycles has increased each year until they form nearly one-third of our sales," he said in discussing the subject. "Give a boy a jackknife when he is five years old and if it gets

lost or broken he is not satisfied until he has another. He finds it such a great convenience and necessity, he is never without one through his life. The same applies to a bicycle. As a boy using one to run errands, to take him on pleasure trips, and used in many other ways, it becomes just as much a necessity in his life as the jackknife, and I have been in the business long enough to have fitted a boy when he was five years old with a juvenile wheel, to have him come back when he was ten years old for a larger bicycle, and then again when he was fifteen years old for a man's machine. I have always paid particular attention to correctly fitting the children when they have been purchasing wheels so that they would enjoy the mounts to the very fullest extent, and I know that I am reaping the benefits every year, from having sold the youngsters their first wheel, and having given satisfaction they return to us whenever they wish to obtain a new model."

Burgess then switched to one of his pet ideas—that trouble with pneumatic tires has caused more riders to give up cycling than any other one agency, and that repair plugs helped the damage, and are still doing so.

"It pays to educate customers regarding the repair of tires," he said. "In many cases when wheels are sold, they are sold into families that have never had any experience whatever with bicycles, and as soon as there comes a puncture in the tire it is returned to the agent. It is a lamentable fact that many of our agents deliberately plug the punctured tires, when it would be far better to use Jiffy or Jifoid for this purpose, as when repaired with some of the latter the tire is as good as new, but a tire containing a plug never is satisfactory and never will be.

"I think that a fresh tube of Jifoid should be placed in every tool bag, wrapped in a paper on which is printed the fact that the customer can easily heal his own puncture with very little trouble, and directions as to inserting, etc. I have found that I have made innumerable friends by this treatment of customers. I have also found that unscrupulous agents will improperly repair a tire, when it could have been properly repaired with Jifoid, and then place the tire in water and demonstrate to the customer that it was porous, of course the customer not knowing the nature of a puncture does not know what to do; the unscrupulous agent very often informs him that it is impossible to fix the many alleged tiny holes—that his tire is porous and absolutely of no further use. He then sells his customer a new tire, the old one being left in the shop, the agent repairs the tire properly and in this way can sell it, if in fair condition, for at least \$2, which represents a clear profit to him, besides the profit he has already made on the tire he sold to the customer. Fewer plugs, more Jiffy, is my doctrine, and I believe it helps sell bicycles and keeps their riders content."

EXPORT YEAR BEGINS BADLY

January Shows Abrupt Losses—Japan's Sudden Drop—United Kingdom and Cuba Head the Increase List.

In the matter of exports, the year 1907 began badly. The decline over the corresponding figures for 1906 which aggregated a little over \$75,000, was fairly general throughout the world, although the relative drops in the cases of the different markets, were by no means in agreement, when measured in per cents. That is to say, the decline proves to have been sporadic rather than general in the absolute sense. Of the greater manifestations, the Netherlands reveals a slump of \$41,127 Germany loses \$27,660, and Japan, \$12,971, which is nearly equivalent to the depreciation in the entire "other Europe" group. Among the lesser losses are, Italy, British Australasia, and British North America. Mexico, Brazil, and other classifications, for the most part have fallen less than \$1,000. In marked contrast to this state of affairs, the returns from the United Kingdom reveal an increase in business amounting to \$31,764, while Cuba stands next in order with \$2,264 gain, Argentina, Belgium and "other countries," followed in the order named.

As to the aggregate values of exports for the seven months ending with January, the total is upwards of \$40,000 behind the corresponding figures of one year ago, and some \$28,000 behind the same returns for 1905. The order of depreciation is practically the same as in the month's statistics. Netherlands leads at \$51,000, Germany with \$26,000, and France with \$20,000, all in round numbers, following. Only in one or two instances, most notably in the case of Japan, is it found that the loss has been very abrupt, so that the totals for the seven months, develop a loss which is considerably less than that for the month just reported. In the instance cited, Japan's loss for the seven months amounts to but \$483. The report in detail follows:

Cycles, and Parts of—	January 1906	January 1907	Seven Months Ending January—1905	Seven Months Ending January—1906	Seven Months Ending January—1907
Exported to—					
United Kingdom	\$27,315	\$59,079	\$87,962	\$70,469	\$153,832
Belgium	2,265	2,844	22,016	12,844	14,688
France	1,311	1,405	16,090	25,922	5,609
Germany	31,598	3,938	18,693	43,207	16,471
Italy	9,182	5,040	13,152	22,326	14,659
Netherlands	43,702	2,575	23,968	71,290	20,265
Other Europe	17,639	4,078	56,581	86,325	71,755
British North America	2,924	1,459	40,949	20,170	15,580
Mexico	9,217	8,377	25,589	45,026	59,733
Cuba	2,268	4,532	22,078	23,277	19,537
Other West Indies and Bermuda...	3,053	1,566	18,159	13,795	12,106
Argentina	1,854	2,411	11,155	10,053	11,999
Brazil	1,690	1,129	7,782	4,989	5,758
Other South America.....	1,739	880	11,236	10,734	12,958
Japan	18,378	5,407	124,213	96,513	96,030
British Australasia	9,196	3,976	94,042	63,898	48,595
Other Asia and Oceania.....	1,653	630	33,259	20,287	17,903
Other countries	258	576	7,306	5,686	7,774
Total	185,242	109,902	634,230	646,811	605,252

Evidence of Trade Benevolence.

The British Cycle Trade Benevolent Fund has prospered to such an extent that it now is possessed of interest bearing securities worth \$15,000. The Fund was established about a year ago to aid dealers and others identified with the cycle industry who may suffer accident or loss of employment, and also to extend aid to deservicing dealers who may become financially embarrassed. Rendering assistance to widows and orphans of subscribers to the fund likewise is within its scope.

Liberty Bell Offers 80 Per Cent.

The Liberty Bell Co., Bristol, Conn., which after disposing of its factory property to the New Departure Mfg. Co., went into the hands of a trustee on January 28, has made a formal offer of 80 per cent. to the creditors. Most of the creditors have accepted the tender. The concern's liabilities approximate \$40,000, and its assets, made up of book accounts, are less than \$36,000, which of course will shrink in the process of collection.

Indiana Dealers Elect Leaders.

The Richmond (Ind.) Bicycle Dealers Association has elected the following officers for the 1907 term: President, W. M. Waking; vice-president, B. W. Thornton; secretary, Elmer S. Smith; assistant secretary, W. T. Bradway; treasurer, W. H. Dunning. The association is one of the few remaining local trade organizations, and has done good work in its vicinity.

Demonstrated Their Motorcycle Tire.

A demonstration of the Goodyear mechanically fastened motorcycle tire, constituted the "card" at the "Saturday Evening talk" of the New York Motorcycle Club on the 2d inst. H. D. Benner, of the Goodyear staff, fulfilled the roles of lecturer and demonstrator and made the most of the occasion.

The Retail Record.

Rochester, N. Y.—Forest & Malone; new firm at 10 Monroe avenue.

NEW IDEAS IN COASTER BRAKES

Musselman Invents Ingenious Device Which Eliminates Sidearm and Incorporates Other Striking Features.

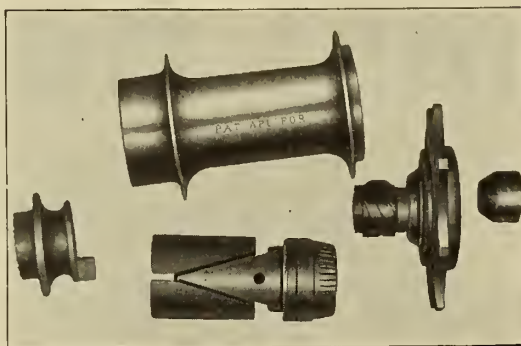
Coaster brake design, it would seem, must have been reduced to its lowest terms long ago. Yet even as nothing material can be perfect, so the coaster brake principle as revealed in each of the many devices of its class now on the market is capable of betterment in one way or another. A living demonstration of this truth appears in the new Musselman automatic coaster brake, which has just been developed by A. J. Musselman, of Chicago, Ill., representative of the Pope Manufacturing Co. Combining a very small number of extremely useful and ingeniously contrived parts in a shell which is no larger than the ordinary barrel of the plain type of rear hub, this device appears to represent if not the very last, at least the next to the last word in its class.

Considering the components as here illustrated it will be observed that there are but six essentials—the shell, the sprocket and driver combined in one piece, the clutch, the brake and the two cones which support the bearings. Briefly, the clutch consists of a cone having a ratchet face adapted to engage the interior of the hub shell when moved into the driving position, its back face being fitted to carry a wedge-shaped key which is designed to apply the brake ring. This latter, which is of spring steel, is slotted throughout its length on one side and cut away to receive the wedge, while upon the other it is slotted to receive a key which forms a portion of the left hand bearing cone. The driver carries a boss which is threaded externally to engage a corresponding thread within the clutch, thereby moving it transversely of the hub under the differential action of the sprocket.

In action the forward rotation of the sprocket carries the cone clutch to the right thereby engaging the ratchet face with the shell and securing the forward drive in the usual manner, the working pressure on the chain always tending to hold the clutch in action. At the same time the brake ring is free to rotate within the shell, its natural shape allowing ample clearance between it and the friction surface. When the pedal action ceases, the differential movement set up between the hub and the clutch is sufficient to back the latter out of engagement, when it at once ceases to turn and becomes stationary with the sprocket. As soon as the back pressure is applied to the pedals, the clutch is carried farther to the left and out of its normal position sufficiently to force the wedge which it carries into the corresponding

slot in the brake ring, thereby expanding the latter against the interior of the shell, and securing the braking action just in proportion to the degree of pressure which is brought to bear on the pedals. Any amount of forward motion at once tends to draw the clutch to the right along the axle, thus freeing the brake which at once springs back out of engagement with the shell, and finally engaging the clutch and hub in the positive fashion already indicated.

Among the advantages claimed for the arrangement as set forth by its inventor,



are the following: That it is positive in driving and never fails to clutch; that it frees automatically and never sticks; that in coasting, it is as free as a front hub; that in braking, it is extremely sensitive and possesses an amount of friction surface which is not to be found in any other device of its class. Of its advantages when compared with other coaster brakes, it is claimed: That it has no more than half as many parts as any other; that it is lighter than any other by at least fifteen ounces, its actual weight being not more than 25 ounces; that it is made without a side arm; that it is no longer than an ordinary plain barrel hub, on which account it is better appearing as well as simpler externally.

With regard to the absence of the usual side arm, the claim is advanced that it is no more in requisition than it would be



upon the ordinary front hub, inasmuch as the turning effort of the brake is entirely absorbed by the bearing cone at the left end of the hub. Whether driving or coasting, all strains at this point are in the forward direction, and as the cone is screwed on the axle, which has a right hand thread, the effect is invariably to set up the cone against the fork end.

Musselman has had made up a number of his coaster brakes, but is ready to issue licenses or to otherwise discuss its manufacture.

GASOLINE FOR NEW YORK DEALERS

Explosives Commission Promulgates Regulations Applying to Motorcycle Shops —Two Gallons the Limit.

It is now possible for the motorcycle dealers of Greater New York to test machines and make repairs indoors and to supply a customer with enough gasoline for him to at least reach an establishment licensed to carry that fuel in quantities. The amendment to the city regulations which was brought about as a result of conferences between representatives of the Municipal Explosives Commission and the Federation of American Motorcyclists finally has been passed by the former body and duly approved by the mayor. It permits motorcycle establishments to carry two gallons of the fluid, but under the same strict rules that apply to all other places in which explosives are kept.

The relief takes the form of an addition of a new chapter to Part VII of the Explosives Commission's regulations, which part provides for an annual license fee of \$10 if the gasoline is kept for sale or \$2 if it kept merely for use. The new chapter in full is as follows:

Motorcycle Repair Shops.

Licenses shall, (1) Be issued (a) by the fire commissioner, (b) Subject to all the conditions of these regulations and such further restrictions as the fire commissioner may deem necessary; (c) For the term during which all the conditions and restrictions observed, for the period of one year. (2) Terminate immediately on any violation of these regulations or the restrictions imposed by the fire commissioner. (3) Be revoked by the fire commissioner should he deem that the interest of public safety so demands.

Sand shall be kept (1) In approved fire buckets for fire extinguishing purposes only. (2) In approved receptacles for use in absorbing waste oil on floors. (3) In bed or metal drip pans where motorcycles are kept on floors that are not fire proof.

Smoking is absolutely prohibited in any room or place used as a motorcycle repair shop, or in any room or hall opening into such motorcycle repair shop. A notice in large letters "No Smoking" shall be displayed in a conspicuous place and manner on the wall of said motorcycle repair shop.

No stove, forge, torch, boiler, or other furnace, flame, fire or fire heat, no electric dynamo, motor, or other exteriorly sparking electric apparatus, or any artificial light (except the incandescent electric light) shall be used or allowed in any motorcycle repair shop or in any room directly adjoining such shop.

Movable incandescent electric lights shall be protected by approved metal cages and shall be fitted with keyless sockets. All electric switches and plugs shall be permanently located at least four feet above the floor.

Sec. 60. The amount of gasoline in any motorcycle repair shop shall at no time exceed two gallons.

Such gasoline shall be contained in one approved safety can of no more than two gallons capacity. Such can when not used, shall sit in an approved drip pan of metal.

If your business needs a

Spring Tonic

treat it with

National Bicycles

The treatment almost certainly will cause you to "pick up" wonderfully in "no time at all." Nationals are not like other bicycles.

Catalog and Agency Terms on request

National Cycle Manufacturing Co.

Bay City, Mich., U. S. A.

☞ It is better to buy "the best" tire and pay slightly more for it, than to purchase a "cheap" tire and repent later. "The Best" is the most economical in the long run.

FISK TIRES

are that happy medium of lightness and strength that insures Comfort and Long Wear.

☞ With our 1907 product, the Standard of Quality as set by us is the Very Highest—and no effort will be spared by us to maintain it in every respect.

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Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should Address us at P. O. Box 649.

NEW YORK, MARCH 9, 1907.

Neglect of Juvenile Trade.

One phase of the bicycle market, the importance of which is lost upon many dealers, is the value of at least a small stock of juvenile machines. Considered as stock in the purely abstract sense, they are always a live and useful asset. The demand for this class of goods is a fairly constant one, it is less limited by the caprice of fads and fancies than is the market for adults' machines, it is bound to hold so long as children continue to people the earth, and it is always particularly lively at holiday and vacation time and when birthdays come around—which is pretty nearly every day in the year.

Strange to say, despite the apparent value of this line as a supplement to the regular business, the greater part of the average dealers pay absolutely no attention to it. Four stores out of every five have absolutely no children's wheels in stock, and the trade which might be gathered in through this medium is allowed to scatter to the department stores and the dry goods and toy shops where the value of such goods is fully understood. Thus where the men who are engaged in the legitimate trade might possess themselves

of an opportunity to get into touch with the elders who buy for their own juveniles as well as the youngsters themselves, who someday will be no longer of that class, they are turning good business away with indifference and allowing it to go to waste in the general merchandise stores. Strange though it may seem, it is nevertheless a fact, and it is not a matter of question that if in this respect the dealers were to wake up, the results would show immediately how great had been the mistake of the past, and how great had been the actual loss in round silver dollars.

Prof. Oerum and the Bicycle.

Americans as a class are reputed to be lovers of out-of-doors and out-of-door sports and pastimes. Americans as a class are robust, clear-eyed and vigorous. The natural conclusion, which is in perfect accord with numberless theories in the matter, is that the out-of-door part of the American life has something to do with it. Just how or why that should be so, other than that it is so, is more difficult to tell than might at first be supposed. For instance, ever since the use of the bicycle became popular, the benefits which accrue directly from its use, first because it is a form of rational exercise, and second because it is a form of rational exercise in the open air, have been dilated upon until they have become a sort of threadbare coat which every cyclist wears with an air of defiance.

"Look at me," he says, "guess how old I am. Now look-a-here," lowering his voice to a confidential hush, "I'll bet you f-i-v-e-dollars, I don't look a day over thirty. Hay? Well, sir, I was born the 21st day of May, 1855, and I can't remember when I had a sick day. That's the bicycle." But when you ask him why, and why again, and he has had his say about red corpuscles and serum and neurotics and oxygen, all of which may or may not be intelligible, unless he is unusually well informed, he can go no farther.

It all depends upon the quality and quantity of the blood, this question of health and longevity and enjoyment of life. That is understood from the beginning. But the direct effect of light upon the blood as well as the breath of life, has up to this time been the subject of rather vague conjecture and much theory. Within a few months, however, Dr. Oerum of the Finsen Institute at Copenhagen, has been carrying on a number of experiments to deter-

mine in common notation just what this effect may be. His conclusions, as recently published abroad embody the following facts: Darkness tends to reduce the amount of blood in circulation by upwards of 3 per cent., at the same time, it will increase the blood pressure. This effect will be manifested within three or four weeks, presumably of constant deprivation from the light, while intensive light will have the same effect in four hours. Light baths are apt to increase the amount of blood in four hours. Red light exerts a similar influence to darkness, while blue light tends to have the opposite effect.

Maintaining the full supply of blood in circulation, preserving its quality to the highest degree of purity of which the system is capable, bringing the muscles of all the organs into action to stimulate the circulation and so increase the rate of renewal of the organism—all that is natural, is beneficial, tends to keep the process of renewal in motion at the same or a greater rate than the process of destruction which is as constantly going on. All this tends to health and to long life, and there you are. Also there is where the use of the bicycle comes in as exerciser, aerater, and sun-bathing machine.

The National Cycling Association did the best evening's work of its life at its annual meeting last week; if it is followed up and proper publicity obtained the cause of cycling cannot fail to benefit. The establishment of a Junior Championship can be made the equivalent of an influx of young, fresh blood and enthusiasm that is beyond price, while N. C. A. control of road racing should be the means of correcting some of the grossest abuses perpetrated in the name of sport. Uncontrolled road racing has been a weed in the garden. Efforts to govern it will, of course, arouse the malcontents and breed a full crop of soreheadism, and in due course the usual mumblings regarding a "rebellion" and the formation of a rival association are sure to be heard. In fact, they are already being heard, but however unpleasant that matters little. The man who believes in clean sport and who is not afraid of being "found out" will welcome N. C. A. control. The resolution which strikes at the practice of track owners offering cash to amateurs is another step in the direction of decency. Track owners should be made to understand that however great their financial interest they will not be permitted to debase amateurism.

HIS BARGAINING BAD BUSINESS

Results of Trying to Get Too Much for
Old Machine—What the Rider
Lost by His Delay.

Whatever may be his excuse, the man who fails to take advantage of a business opportunity besides throwing himself open to ridicule is more or less a loser himself, and whether the loss is attributable to lack of business insight, or penury, his remorse is none the less amusing, and the extent to which some men will go in order to "shave a price," or "beat down a dealer" is not short of astounding. As an instance of the sort, a certain dealer whose place of business is not more than fifteen hundred miles from New York, began to be besieged by a motorcyclist who was anxious to get rid of his old machine either directly, or in trade for a new one, the object being in either case, the acquirement of a more modern and better machine. From the first, he placed much too high a valuation on the used mount, and his refusal to accept less than the asked price, ultimately brought about his temporary removal from the ranks of the riding fraternity, and also cost him not a little in dollars and cents.

At his first visit to the dealer in question, he exhibited the machine, which, although of a well known and excellent make, was not in the best of shape, and announced that he would take nothing less than \$135 for it. In the course of his inspection, the dealer found a number of little things that needed attention, and after a mental estimate of the probable cost of reducing it to saleable condition, informed the would-be trader that he could not afford to allow him more than \$125 for it, which he thought was cutting his own probable profit down to a pretty close margin. The offer was sniffed at with scorn, and the other left in high dudgeon, apparently offended that his own price had been considered too high. Despite this rebuff, however, it was not more than a couple of days before he was back again, still trying to get his own price and again was offended that the dealer should attempt to beat him down.

This interview being succeeded by others of a similar and equally futile nature, the rider soon became a regular visitor at the store, making at least one call a week, and finally so exasperating the dealer that he told him at last he would not even give him what he had first promised. About that time the now desperate rider began to advertise in the local papers, and failing to find a purchaser in that way, enlarged the scope of his advertising by taking up several of the well known New York papers. The only fruits gathered in, however, were a number of offers below his own figures,

the best of them being one for \$115, which, unlike the others, was renewed from time to time.

At last, after dallying about nearly all summer, going without the use of his old machine, which had been put into shape in the meantime at some little additional expense, and of course, being unable to procure a new one, he was forced to give up all efforts to sell at all and content himself with the old machine as it stood, or else sell out at the best price he could command. After mature deliberation, he chose the latter course and took up the \$115 offer, the costs of advertising and repair required to put the machine into salable condition knocking off the top of this amount, while the loss of its use or that of any other so far reduced the actual value of the deal as practically to nullify it. At the same time, the summer now being nearly spent and his enthusiasm pretty well quenched, he determined to wait until spring, before reinvesting, in order to get the benefit of the year's improvements, so that in the end, he not simply sacrificed his machine at a price which, had it been named to him in the spring would have been laughed to scorn, but he deprived himself of the use of that or any other mount during the entire season. Incidentally, he became a standing joke among those who knew the tale of his tribulations.

Motorcycle Cleanliness Summarized.

Cleanliness is next to godliness, and in no other place can it result in more good than in the vitals of the motorcycle, and such cleanliness in the wearing parts, if not so apparent to the observer, as a well kept frame and fittings, is all the more necessary.

Clean oil requires a clean passage in reaching the bearing surfaces. Clean gasoline, free from water, passing into a dust-clean carburetter, furnishing clean gas, through a clean and close fitting inlet-valve to a clean combustion chamber; where it meets a hot spark from a clean plug, producing the proper explosion, from clean points, in the clean contact-breaker case, makes clean action by the clean piston in the clean cylinder, winding up by a clean and noiseless ejection of the exhaust through a clean muffler.

Offers a New Cheap Fuel in "Petrolit."

Hugo Medberg, a Swedish marine engineer, has, according to a Swedish paper, invented a substance termed "Petrolit," which it is claimed will be a formidable competitor of petroleum products, both for lighting and power purposes. "Petrolit," according to the inventor, is produced from ordinary wood tar and can be sold at one and one-half cents a liter, or about six cents a gallon. Tests are said to have proven that the substance is fully as efficacious as gasoline for motors and that it has the advantage of being odorless.

IMPORTANCE OF ADJUSTMENTS

Small Things That Make the Difference
Between Pleasure and Hard Going—
Simple Enough When Learned.

Although there are only a comparatively small number of adjustments to be looked after in the maintenance of the ordinary bicycle, it is an undeniable fact that each of them is of vital importance to the life and action of the machine. Strictly speaking, the importance of each individual adjustment increases proportionately as the number of such adjustments is reduced. Thus each comes to have an important and direct influence on the performance of the mount at all times.

The setting of a ball bearing, for instance involves a difference of only a very small fraction of a turn of the adjusting cone, and yet that almost infinitesimal difference may mean happiness or woe, work or play, when it comes to riding. The nicety required in effecting the adjustments, thus is seen to increase with the decrease in their number and increase correspondingly, in their importance. But after all, the care of a bicycle is one of the simplest matters imaginable, once the fine distinction between a good or a poor setting in a bearing is thoroughly comprehended, once the difference between a tight and a loose nut are understood.

Strange to say, some riders never can seem to learn the distinction between the right and the wrong of adjustments, between the good and the poor in temporary repairs. Consequently there are many who are "cyclists so long as the wheels continue to go 'round, and pedestrians as soon as they cease." Worst of all, many of these individuals lack ambition to better their condition in this respect, but helplessly rely upon the ingenuity and kindness of others in getting their roadside repair work done, while groaning loudly at the enormous expense to which they are put by the repairmen of the shops which they frequent, and who, be it said to their credit, usually know a good thing when they see it, and take advantage of any opportunity to even up some of the low scores imposed by the over-clever riders, who are constantly "doing" them.

Uses a Surface Carburetter.

An unusual example of the adoption of a very ancient and very modern point of view in designing a motor bicycle, is seen in the case of a recent British production which boasts at once magneto ignition, and a surface carburetter. There are certain indications in the automobile world, however, which seem to point to a possible recrudescence of the surface type of vaporizer, so that in the cycle of events it may develop that instead of being incongruous, the maker in question is merely stealing a lap on his contemporaries.

HOW HINTZE MADE HIS MILEAGE

Only Ten Month's Riding Included in the Official Figures—Did 29 Centuries in One Month.

"Why did I start in to ride centuries and mileage in the Century Road Club of America's competition? Because I had an idea that I could win both medals after arguing with Seeley, Mommer and several of the boys one day," said Herman Hintze, the New Yorker who, as announced in last week's *Bicycling World*, won both century and mileage medals of the Century Road Club, riding the remarkable number of 139 centuries, and a total of 20,292 miles, the best record since the days of the frenzied boom. Hintze really made a better record than he reported, for he had ridden something like 700 miles, which included a number of centuries, before he started in to check under the Century Road Club rules. His accredited mileage, therefore, was made in ten months, as he did not begin to file his check cards until March 1st.

Hintze kept a detailed record of his centuries and the result is distinctly interesting. As the complete records are all kept by Noble O. Tarbell, chairman of the roads records committee, at Lake Geneva, Wis., it is not possible at this time to give the actual number of miles ridden each month. The reader will have to multiply the number of centuries ridden by 100, deduct from the total number of miles made and arrange to suit his fancy.

March is never a pleasant month for riding "hundreds" and Hintze was credited with only three, but in April he rode three times that number, increasing the number to 10 in May. The following month he rode only 8 centuries, but in July checked in 10, and during August rode 12. The next month—September—was when Hintze really made up his mind to win and that he came through without undermining his health is but proof of his enduring constitution. Hintze has a good position, else he would not have won the competition. During September he took his vacation, or what was technically known as his vacation. It seemed more like work, for during those thirty days the watchmaker rolled 29 centuries, a hundred miles a day for every day of the month but one. He worked a few days the next month, but managed to ride 26 centuries, and in November his score was 20 centuries. Despite the inclement weather during the last month of the year Hintze pedalled more than 1,200 miles, getting credited for 12 centuries. This is riding and riding with a vengeance. His best time for a century is 5 hours 39 minutes; for a double century, 16 hours, and for a triple, 31 hours.

Hintze did not sleep much when he rode those 75 centuries in three months. While others were telling how easily they ex-

pected to win the competition Hintze was rolling along spectral-like over Long Island roads. Notwithstanding his loss of sleep he did not lose much weight. On March 1st, he tipped the beam at 123 pounds; when the heavy work was completed he weighed 112 pounds.

Practically all the riding was done over the official Long Island course. Hintze's riding usually took him from Bedford Rest to Valley Stream, thence to Freeport, Hempstead, Lynbrook, Massapequa, and Amityville, and then return. He was arrested three times—twice for speeding and once for not having a light—but was let



HERMAN H. HINTZE

go each time after pleading with the "cop."

It may interest some aspiring mileage "fiends" to know what material was used in covering more than 20,000 miles. Two years ago Hintze bought a Reading Standard bicycle. It wasn't a roadster, but a light racing wheel and—he is riding it yet. It was geared to 84". Three pairs of Fisk tires were used in the medal-getting, and four nickel-steel chains were worn out, as well as five sprockets—two front and three rear. Because of several accidents he was obliged to get four front rims, two new bars in the frame, a new head set and 27 spokes. One saddle was worn out. Hintze was fairly lucky in escaping punctures, for although fifty-four, the number his tires received, may sound like a great many, it is not when the mileage is considered.

Although he appears much younger, Hintze confesses to having lived 28 years and to have been riding a bicycle since 1892. His first century was rolled in 1897—the Firemen's Cycle Club century. The following year Hintze aspired to be a record breaker on the track, so he started to ride at the old Berkeley oval track at Morris Heights, the next year at Manhattan Beach, Vailsburg and New Haven, and in 1901 at Madison Square Garden. He was

fairly successful but had so many minor accidents that he decided that he would be safer on the road than on the track. Hintze keeps a sort of tab on his "doings" and from memorandum he figures that since 1896 he has ridden about 84,420 miles, which includes 423 centuries.

While Hintze's performance is a splendid and most notable one, it is not, as has been explained in the *Bicycling World*, a record for one year. The official century record, made under Century Road Club rules, was made by John Nobre of Philadelphia. He covered 253 centuries in 1897.

Defeat Earned Brandes \$25.

Otto C. Brandes evidently did not lose much time, after being turned professional last week by the National Cycling Association, before beginning his open campaign for cash. He is credited with having taken \$25, the loser's share of a purse in a race on Tuesday night, 5th inst.

The race was an unlimited pursuit between "Willie" Blackburn, on roller skates, and Brandes, on a bicycle, and without his locally famous bathrobe, and was held on the twenty-lap level track in the Lenox roller rink, at 116th street and Lenox avenue, New York City. It was the easiest money Brandes ever made for the roller skater required only three and one-half laps to overhaul the former Edgecombe "star" and that in the "remarkably fast" time of 2 minutes 40 seconds for about a sixth of a mile. This is almost a record for a slow race.

A person who claimed to be the manager of the skating rink told the *Bicycling World* man that Brandes had received \$25 as his share, and that the winner had been paid \$50.

"What? Real money? The kind that one can buy things with?" he was asked.

"Yes, sir! Real money."

"Sure, it wasn't confederate or stage money?" persisted the questioner.

"Oh, it was good money, all right. We don't usually pay anything to the loser of the race, but this was the first time we had ever run a bicycle rider against a roller skater, and we gave the bicyclist \$25."

Fogler and Bardgett to Go Abroad.

Joe Fogler, of Brooklyn, winner of the last six day race, and Walter Bardgett, of Buffalo, who has been sojourning in New York City for some time, have decided to join the colony of American cracks now in Europe. They will sail on the Kaiser Wilhelm II, Tuesday next, 12th inst., according to present intentions, their ultimate destination being Paris.

Lawson to Stay in Salt Lake.

Iver Lawson has signed to ride at Salt Lake City during the entire season, according to news received here this week. As Kramer has been secured for that track for the same length of time it looks as though the racing activity in Zion will be of the gilt edge variety.

NEED MORE CONSTANT FUEL LEVEL

Carburettor Faults Due to Inadequacies of Float Feed System—Improvements That Would Increase Efficiency.

Strangely enough, throughout the entire range of carburettor development but comparatively slight attention has been paid to the regulation of the fuel supply. In practically all carburettors now in use, the supply is maintained by gravity and is based upon a certain "level" peculiar to each individual make, and usually supposed to be held nearly constant by the action of a float valve. That this is not constant, however, but quite the contrary, is possible to show; the disturbances due to the varying suction of the motor, the surgings of the liquid in the float chamber due to this and other causes, not to mention the vibrations of the motor and the plungings of the machine upon which it is mounted, all tending to upset this standard and render the mixture uneven in consequence.

How much this may affect the running of the motor and ultimately develop certain irregularities in operation which commonly are attributed to other causes, is discussed in a recent article by Lester Belmont, a foreign motor expert, whose material, though drawn from the field of the automobile, yet applies almost equally as well to the conditions existing within the power plant of the motorcycle. Considering first of all the exhaust from the motor, which he submits to a rigid analysis in a theoretical way, he accounts for the two qualities of visible exhaust which may be found as being due either to imperfect lubrication, in the case of the blue or white smoke, and to an over-rich mixture when it is black or blue-black. But in the case of the exhaust, which, although invisible, yet possesses a strong and characteristic odor, he discovers the basis of his argument in regard to the matter of fuel supply.

On the assumption that the charge is not invariably of a perfectly uniform nature, he accounts for a portion of the odor by supposing that the period of ignition is not of sufficient duration under certain circumstances, to complete the firing of the entire cylinder contents. When this is the case, the exhaust must contain a certain proportion of unburnt or burning gases, from which the disagreeable and characteristic odor arises. This odor, is, of course, readily to be distinguished from that due to partially burnt oil, or that due to an over rich mixture pure and simple, and is perfectly familiar to motorists who have studied the matter closely.

"Running the engine at its normal speed of, say, 1,000 revolutions per minute, the carburettor air inlet can be opened grad-

ually by the hand control until a point is reached when misfiring will commence, but if no more air is admitted just prior to the misfiring position, there ought to be absolutely perfect combustion, yet odor and some amount of smoke will still come away," he observes. "Here is the certain indication that combustion is not really completed. Why should this be when the conditions appear to offer the best advantages?"

"The cause can undoubtedly be traced to variations in the height of the petrol in the spraying nozzle of the carburettor due to the float acting too sensitively," is his conclusion. "I would like to call particular attention to a fact that generally seems to have escaped notice. Since the period when Maybach designed his carburettor float to secure a constant level at the jet no improvement has been made in this portion of the mechanism, and it remains to-day practically as first marketed many years ago. Every other part of a motor-car has attracted the energy of inventors, and just why this is so it is difficult to fathom, for no carburettor possesses an ideally perfect float system. The history of invention shows numberless instances of the same idea simultaneously occurring to several persons, and the records of recent patents relating to floats are confirmatory. There is no question of doubt that the float does not fulfil its proper function of keeping a constant level below the jet or spraying orifice."

In regard to the disturbance of the fuel in the float chamber and jet, but more especially pointing toward the "chattering" of the float as a basis of not a little of the carburettor difficulty which commonly is laid to other and less complex causes, he says:

"To act on the minute quantity of petrol that the needle valve is permitted to pass after each suction stroke of the piston, it is essential that the float shall be of light and delicate construction and it is this very lightness that tends to upset the carburation. Even when only being run on a test bench the turning movement of a practically vibrationless six-cylinder crankshaft will be more than sufficient to create waves in the float chamber. As at present constructed, it is physically impossible for the ideal perfect equilibrium between the petrol inlet and outlet to be maintained, whilst the washing of the petrol itself to and fro is alone sufficient to upset the balance. It is a fortunate thing for car owners that the internal combustion engine will work with a wide range of mixture of air and petrol, for were it otherwise, and the theoretically correct mixture became necessary, all existing engines would at once find their way to the ignominy of the scrap heap.

"The factor that sets up more disturbance than the other two is the vibration of the vehicle itself when traversing rough road surfaces. The vibration must shake

the float so vigorously as to produce a similar action to that obtained by the paddles in a butter-making churn, with the result that never for two seconds successively is the petrol retained at the same level below the spraying-jet. With an automatic carburettor, the engine crank-shaft revolving at a definite number of revolutions per minute is compelling the piston to draw in the same quantity of air upon each suction stroke, but the petrol, for the reasons just stated, varies in quantity enormously. A car that has been running well over a smooth stretch of road will suddenly lose speed when a rougher surface is encountered, and the driver has to open out the throttle a little to overcome the presumably extra friction against the driving wheels. The friction does, of course, account for a slight lowering of driving wheel speed, but does not explain why the engine fails to pull so well as before. The chattering of the float is the real source of the trouble, and this is greatly intensified when pressure feed is employed to supply the carburettor with fuel."

Every investigation must, as a matter of course, set forth a "remedy" or it loses its point, and Mr. Belmont is in line with precedent in this respect, although he fails to more than outline what that remedy may be. Safe to say, however, the perfect solution of the difficulty is as difficult as its very existence is little recognized, and were any plan readily apparent, it would have been adopted long ago.

"Two or three very promising devices have recently been patented with the sole object of obviating the tendency of the float chamber," as he points out. "One is at the present moment under test on an omnibus, and if the results already achieved on a light car are repeated on the heavier vehicles it is quite possible that existing views as to carburettor design will be considerably modified. The writer has knowledge of two other devices, one of which had been proved to increase the mileage per gallon on a moderately powered car by at least 20 per cent. Although the details of each are worked out differently, the main principle is pretty well the same, viz., the maintaining of the float in equilibrium by the use of an air leak dash-pot and a light spiral spring; in fact, the adaptation of the same idea that has successfully served in several patterns of shock absorbers. The problem is not capable of easy solution, as so many disturbing factors have to be considered, but when it is solved we may look for a large increase of power without material alteration of engine design."

A repairshop makes a good a loafing place as a corner grocery in the country, but the dealer who has the wit to fit up a club room over his store and put up a gate in front of the shop with a lock on it, can get to do more work, and often enough, will get more work to do.

AMERICANS ON FRENCH TRACKS

Schwab Surprises Himself by Winning Two Events—John Bedell Gets a Consolation Pot Because of Foul.

Oscar Schwab, of either America or Germany (which ever sounds best on the program), who used to ride at Vailsburg, distinguished himself at the Velodrome d'Hiver, Paris, Sunday, 17th ult., by winning two races at one meet, something unusual in his career. His meal ticket has therefore been extended another month.

Schwab's first victory was in the international handicap, at 550 metres, a little over one-third mile. The riders that qualified in the six heats were Comes (20 metres), Benyon (10), Goven (30), Martin (20), Schwab (20), and Poulain (scratch). The race was fast from the gun and Poulain could not get up with the leaders. Schwab beat Benyon, the Briton, by a half length, Martin finishing third by a wheel. Time: 0:39 $\frac{3}{4}$.

The other race in which Schwab corralled the cash was the 10 kilometre lap event. Heller challenged Schwab in the stretch but the German-American won out by a half wheel. Time: 13:27.

Louis Darragon defeated Guignard in both heats of their match race. The first heat was at 15 kilometres and the world's champion finished in front by about 150 yards, covering the distance in 12:14. Darragon was also victorious in the second heat, beating his opponent by 41-3 laps. The distance, 25 kilometres, was ridden in 19:56.

France got much the worst of it in the 1,000 metre match race "France against the Foreigners." It was run in three heats and decided by points. France got 13, and the "Foreigners" 17 points. Poulain, Dupré and Delage represented the French side, while Van den Born, Benyon and Otto Meyer took up the running for the opposition.

Because Oscar Schwab happened to win two races on the previous Sunday the officials gave him the somewhat difficult task of trying to beat Poulain to qualify in the sprint race at Paris on the 24th ult. Of course this bit of discrimination resulted as the officials expected it would. John Bedell was shut out in the sixth heat by Jacquelin. Dupré, who is regarded as Poulain's successor, Walter Rutt and Jacquelin contested the first semi-final heat, the first-named qualifying. Poulain beat Vandenberg and Benyon in the next heat. Rutt won the repechage. The two Frenchmen worked together in the final heat and they accomplished the defeat of the rider who was scheduled to win the six day race and didn't. Poulain sat up before the finish and Dupré got home three-quarters of a length in front of Rutt. The series of time

trials was won by Lignon, with Schwab second, Seigneur, third, and Deschamps fourth.

In the consolation race Comes rode so foully that the stewards had to disqualify him and give the race to John Bedell, Hourlier thereby getting second. Schwab, Tournadour and Martin were not placed.

Goven from 35 metres won the 900 metres handicap, Walter Rutt, the low marker on 15 metres, crossing the line second. Deschamps got third. John Bedell and Schwab were among those shut out in the trial heats.

McFarland Wins Behind Pace.

Despite published reports that Floyd McFarland had sailed for America, the long-legged Californian is yet in France, and according to reports from that country will probably remain there for a few weeks, at least. "Long Mac" made his European debut behind the pace-following machines on Sunday, 24th ult., at the Velodrome d'Hiver, and as he won that race and has plenty of victories in prospect it is probable that he will remain on foreign soil.

McFarland had against him in the 50-kilometre paced race, Antoine Dussot and Henri Contenet. All got away to a good start with McFarland in the lead. They had not gone far before something happened to Contenet's motor and during the change of pace he was lapped by both the other riders. Just at 10 kilometres he was lapped again and McFarland had gained 200 metres on Dussot. During the next six miles Dussot gained half of what he had lost. At 30 kilometres Dussot had got up to McFarland, but after a terrific four-lap fight he was forced to fall back. From then until the finish the American just played with his opponents, lapping Dussot three and three-quarters times. Contenet was third by 11 laps. Time, 40:26 $\frac{1}{2}$.

New Blood in St. Louis Club.

The annual meeting of the St. Louis Cycling Club was held on Monday evening, March 4, when the following officers were elected: President, William M. Butler (re-elected); vice-president, H. Clay Ashlock, secretary-treasurer, Charles Lee Barr; captain, Aug. J. Schmidt. It was most gratifying to all of the old timers to witness the entry into the ranks of cycling of two new and younger men, both Barr and Schmidt being new men in cycling affairs in the Missouri metropolis. George Lang, Jr., retiring secretary, and A. G. Harding, retiring captain, actively campaigned for their own defeat for the laudable purpose of giving the new generation a chance. They spoke with such great feeling on the subject that when the ballots were counted Lang polled only four votes and Harding two.

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RELIEF FOR MOTORCYCLISTS

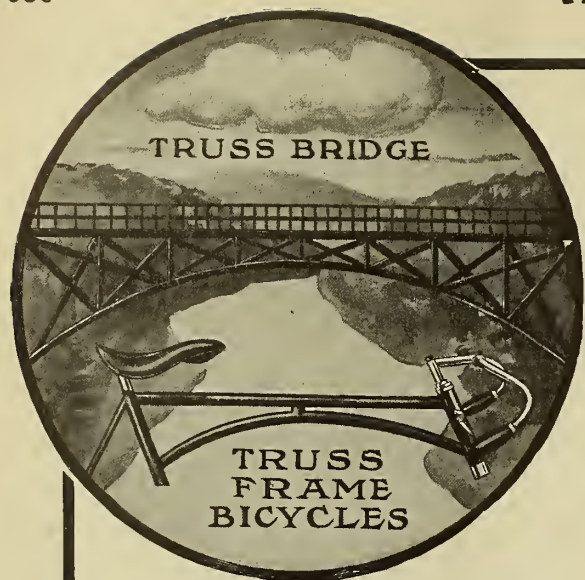
Exempted from Federal License Bill and Favorable Prospects in States in Which Work is Being Done.

Motorcycling was served an unusual number of good turns during the past week, thanks to the Federation of American Motorcyclists.

The promulgation of the new regulation permitting New York dealers to carry a supply of gasoline was in the nature of greater relief than may appear to outsiders to be the case, while the exemption of motorcycles from the provision of the Federal automobile law which was purposely introduced in the last days of the late Congress and which will be renewed in the Sixtieth Congress, is a service of far reaching import. Among other things, the bill seeks to create a Federal fee of \$5 and a Federal tag, which will authorize automobilists to travel in states other than their own without the payment of non-resident fees, which in the case of a Massachusetts motorist traveling from Boston to Baltimore now range from \$10 to \$13, exclusive of Massachusetts' own charge of \$4. The same journey costs motorcyclists but \$4. Motorcyclists are specifically exempted from the requirements of the Federal act, which was drawn by New Yorkers who are so well "trained" that it is now scarcely necessary to visit them.

In Pennsylvania, where the motorcyclists are having the fight of their lives to obtain relief and where the F. A. M. state representative, Dr. S. D. Bashore, is doing work that almost entitles him to a monument, the work is beginning to tell and at least a measure of relief is now strongly probable; the week's reports are distinctly favorable; and even in Massachusetts, where Dr. G. B. Gibson, treasurer of the F. A. M., is leading the fight, the prospects are encouraging, although there is some fear that all the amendments to the existing act may be withdrawn and thus render relief of any sort impossible.

In Illinois it was discovered that fees and tags threatened motorcyclists, and Western Vice-President Hall promptly "got busy" there. Away out in Washington, an ambitious senator is seeking to lift the fees for automobiles from \$2 to \$20 per year. The present law imposes the \$2 fee alike on motorcycles and automobiles, and fortified with "ammunition" given him by the F. A. M., J. E. Bates, a "live wire" in Greenacres, Wash., had already busied himself in an effort to have motorcycles exempted, or the fee at least halved, and to the arguments submitted he attributes the fact that motorcycles were not raised in the new bill that is pending.



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TOLEDO, OHIO

HEAR THAT LOUD, DOLEFUL WAIL?

It's the Lamentations of the New Pros.—

All are Pure and One Offers

\$25 to Prove It.

Not within a decade has an annual meeting of the National Cycling Association stirred up such a flow of talk as the one held last week. It is natural that it should cause widespread interest, as more business of real interest was transacted at that meeting than at half a dozen sessions previous to that time. The establishment of a Junior short distance amateur championship is commended on every hand and while there are one or two clubs that have not agreed to co-operate with the Association in the control of road racing, and there are some mutterings of discontent, it is generally understood that it is more a matter of misunderstanding on their parts than anything else.

With Salt Lake City still to be heard from, there is one big howl from the New York "shamateurs" who were turned into the professional corral. Some of them are denying everything with so much emphasis and elaboration that it will not be surprising if some others are given the professional tag at the next meeting of the Board of Control, which will be before long, it is understood. Others are just keeping quiet but working with the object of reinstatement in view.

Carl Ericson, who was one of the "unlucky thirteen," has developed a philanthropic spirit since the eventful meeting. "Carl," and Mrs. Sage are "very much alike," in that each wants to aid charitable institutions. Ericson has reduced his opinions to writing:

"I have filed a notice of appeal demanding a hearing at the earliest day possible and demanding the right to be confronted by my accusers upon their oaths," he says in his letter. "In order to publically disprove the charges of professionalism, I will give \$25 to any charitable institution upon proof that I have ever accepted cash in lieu of prizes, or otherwise, or done any act or acts which would affect the standing of a pure amateur cyclist. In justice to the Cycle Path Cork Pullers, of which I am a member, I desire to state that to the best of my knowledge, information and belief, that club has never held contests where cash prizes have been offered or given."

"I will never concede anything. It's for them to prove anything against me," said Victor Lind, when questioned. This seems to reflect the feeling of most of the "shamateurs." While they will not deny having committed infractions of the amateur rule, they consider that their amateur standing remains untarnished so long as they can escape getting caught with the

"goods on," an attitude which in itself, suggests guilt.

"Why I was a professional from the day I rode by first race," said a professional cyclist who was one of a group discussing phases of amateurism. "I won a pair of pedals in a road race and sold them for fifty cents."

"I was a pro before I started to ride," chimed in another racing cyclist who makes his living out of the game now, but who bellowed like a roped steer not many years ago when he was transferred from the amateur ranks.

Louis J. Weintz, Military Athletic League, Cork Pullers' champion and champion of a few other things, who belongs to the New York A. C., the Roy Wheelmen, the Cycle Path Cork Pullers some more, thinks a great injustice has been done him.

"The injustice lies not in the fact that I am turned pro, but that I have been discriminated against. If I am turned, all other amateurs ought to be turned, too," said weintz.

"If I ever rode for cash or competed in a race against professionals, I most certainly was not cognizant of the fact," said A. E. Rhodes, "and if I do not gain the appeal which I shall make I'll quit riding on the spot. I never was in the game for anything but sport and of course I'll never ride professional. I tell you," continued Rhodes hotly, "there is a lot of discrimination apparent. I have been told that we were turned for riding in a race at Valley Stream last summer, called the 'Dyer Handicap.' If that is the case why were not all of the nineteen men who rode turned? Why? That's what I want to know."

Franklyn Fisher is another of the new pros that is not willing to concede anything. He has had experience. On two previous occasions he was turned professional but both times succeeded in having his amateur standing restored. Jack Hume the crack Salt Lake rider who was turned has not said anything, but it is well understood that he will compete with the "coin collectors." They are all cash chasers in Salt Lake City, it is said upon very good authority. Fred West says he positively will not ride in the "professional" races, but all who know West smile at this, as West is a noted "glory" rider.

Of course, around New York there is a lot of idle prattle about discrimination just because there chanced to be no members of the C. R. C. Association in the bunch that was "turned," and because Daniel M. Adey is president of that association as well as of the National Cycling Association, the inference is plain. But Adey is as square a sportsman as ever breathed and when the idle talk about partiality was brought to his ears, he and said:

"Well, if any one thinks any partiality has been shown just let them give me

proof against any rider that has ridden for cash or sold his prizes, or injured his amateur standing in any way, and they will see how quickly I prefer charges against them. It makes no difference to me whether they belong to our Association or any other association or club. I would have my own son "turned" as quickly as anyone, if there was evidence against him."

Care of the Oil Lamps.

One of the greatest drawbacks to the use of the common oil lamp from the cyclists' point of view, is its proneness to become foul and dirty whether actually in use or simply standing idle on the mount. That the weight of this objection depends largely on the amount of care the rider himself is willing to take of the fitting, seldom occurs to those who hold forth the objection. Aside from the evident requirement of keeping the wick and burner cleaned and properly trimmed, the most important matter is the cleaning of the ventilators in the top or chimney. While this is necessary with all lamps, it is an especial requirement of oil burners, since the constant accumulation of soot and dust must tend to cut down the draught and thus impair the brilliancy of the flame. In addition to the need of keeping the wick trimmed, it is necessary that no accumulations of charred thread and gummy oil be allowed to collect about the burner and star wheels, and it is well not to permit the wick to become too short. The expense of renewal is but slight, and the annoyance which may arise from the shortness and foul condition of an oil wick is in no way excusable on the plea of economy. Incidentally one of those little matters which should be seen to, is the oiling of the regulator stem, and the hinges and latch of the door. Although thus oiling an oil lamp may seem superfluous, it really is more than trivial in its importance.

When a Nut Becomes Set.

Whenever a nut or other screwed connection on a motor becomes set and refuses to come undone when the usual means are applied, the wisest and most efficacious plan is to start the motor and run it long enough to heat the offending member to about its average working temperature when conditions are normal. Then after pouring a few drops of kerosene oil around the joint where the thread begins and allowing it to stand for a few minutes, apply a long-handled wrench and strike the end of the handle sharply with a hammer. If the blow is given on the right side of the wrench handle, the chances are that the thin film of rust which is holding the threads will give way at once under the triple influence of the heat, the oil and the pressure. If for any reason the motor cannot be run, the flame of a blow-torch may be brought to bear on the affected part with an equally good result.

THE MORROW

is not the only Coaster Brake

"There are others"

Bridgeport, Ct., December 12, 1906.

ECLIPSE MACHINE CO., Elmira, N. Y.

Gentlemen:—I have just returned from a 3,000 mile bicycle trip from Bridgeport to Chicago and return, under the auspices of the Bridgeport Post. When I started out from Bridgeport Sept. 26th, my wheel was equipped with a coaster brake. This brake caused me so much trouble that I decided after six days' use to take it off and ride without a coaster brake. A bicycle manufacturer induced me to try the Morrow brake and I will say you ought to call your coaster brake the Morrow Never Fail. I have ridden under the worst of weather conditions and on one occasion was 38 hours continuous in the saddle only stopping for meals. I am confident I could not have stood the strain without a brake. During the 3,000 mile trip my brake was only taken apart once and then not because it was necessary, but to satisfy the curiosity of those present. They expressed their astonishment over the condition of the brake after such hard use. Last night here in Bridgeport some of my friends had an argument about the Morrow brake's coasting ability. We tried it and it might interest you to know that the brake at one swing kept coasting seven minutes and fifty-four seconds. The Morrow Coaster Brake has never at any time refused to respond immediately, and it is to-day in such good shape that it would stand another similar trip without any repairs at all. I think I can say I know a little about wheels and equipment and I have tried almost all the different makes of brakes. To-day my experiences assure me the Morrow is the most durable and reliable brake on the market. Every rider ought to try it and he would never use anything but the Morrow.

With most sincere wishes for the success of the splendid Morrow Brake, I remain,

Yours truly,

AXEL JOHNSON,

Reporter Bridgeport Post,

Member C. R. C. A.

TOURING SCHEMES FOR CLUBS

Branch of Activity That Should Be Given Special Attention—Planning Long Tours—Suppressing Extravagance.

"As most of the clubs are now planning, or about to plan, their operations for the approaching riding season, the time seems opportune to drop a gentle reminder of the claims of a club tour. I do not think any cycling club can claim to fulfil its mission thoroughly unless it makes an effort, at least, to inculcate a love of touring among its members; and this can only be done by providing them with reasonable inducements and facilities for indulging in this branch of the pastime," argues "Jock," in the *Scottish Cyclist*.

"Now, Mr. Energetic Secretary, do not turn over the page at this point, nor smile with serene complacency as you think of the two and three days' outings your own particular club intends to carry out during 1907. I am well aware that such tours are common enough among the clubs, and I have participated in sufficient of them to know what a roaring time the boys have on such occasions; but such tourlets are but an apology for the real thing, and it is the real thing which I am now advocating.

"I think it would be an excellent innovation if every club were to appoint a special official—a touring secretary—to look after this branch of the club's operations, and from what I know of the work involved in pre-arranging and carrying out a co-operative tour, I can assure those who are interested that such a post would be by no means a sinecure to anyone who desired to do his duty conscientiously.

"After all, a cycling club should take its stand as something more than a mere means for indulging in afternoon spins, races, and social functions. Such are necessary, of course, and highly enjoyable, certainly; but my ideal club would have as its guiding principle something more than this. It should seek to encourage every branch of the pastime, and induce its members to discover the value of the bicycle as a means for exploring hitherto unvisited parts of their own and other lands. This cannot possibly be done within the limits of a week-end trip or a bank holiday outing, so that if the clubs are to do anything to foster the touring spirit among their members, it must be by means of specially-planned tours of a week or a fortnight's duration. That there are difficulties in the way I admit, and the first efforts may largely result in failure. The main difficulty to be encountered will be to fix upon a period which will coincide with the holidays of several members. It is not open to every worker for his living to arrange exactly when he will take his annual vacation. There may be others who have pri-

ority of claim, or "the governor" himself may have something to say in the matter, so that the would-be tourist may have to take what he can and be content. The solving of this problem will undoubtedly tax the ingenuity and perseverance of the tour organizer severely; but the touring secretary must be an optimist, and one who is not easily discouraged. My own plan has been to find one or two whose holidays coincided with my own, and thereafter to draw as many to my banner as circumstances or inclination would permit. This will, I think, be found the plan most likely to result in success. The announcement that a party will start definitely on an appointed date will be a considerable inducement to others to join, and the earlier



NEW YORK BRANCH: 214-216 WEST 47TH ST.

in the season that date is announced the greater will be the prospects of success. There are many men who will decline to become pioneers in a movement, or who object to promising their support far ahead, but who will, nevertheless, be found willing to "tail in" later on, when things have taken definite shape; and no matter how unpromising the organizer's early efforts may appear, he should always bear this in mind, and persevere with his arrangements to the end.

It will help somewhat if certain dates are quoted in the fixtures list when club tours of this kind will start. One, at least, of these may prove a success, in which case, even if the others fail altogether to be carried into effect, there will be no reason to regret the efforts made.

"Most of the difficulty in getting a party together will disappear after the first year. Thereafter the club tour will probably come to be regarded as one of the events of the season, and, properly managed, will rarely lack a fair measure of support. Of course, clubs must not be too ambitious

in this matter, nor be greatly disappointed if the volume of support is not thoroughly representative of their strength. My own most successful effort has been to attract a party of nine from a club boasting at the time over one hundred members, while on another occasion we mustered but four in all; but it was noteworthy when the tour was not abroad that the numbers increased in each of the four years I worked my touring scheme, and had I been able to find a successor to take up the work when time was no longer vouchsafed me to continue it, I have little doubt that my own club's tours would have developed considerably.

In a previous paper I have given certain hints, drawn from my own experience, with regard to the management of club tours. I have not my copy of *The Scottish Cyclist* handy to refer to, but I think I then dealt with the subject pretty thoroughly. There is, however, one point which, even if I went into it then, will well bear repetition—it is the question of expense. In most parties there will be one or two whose ideas as to what a holiday may cost are considerably in excess of what some of their companions can afford, and unless the tour manager keeps a watchful eye open, certain of the less opulent members may find the outing has proved too expensive, and they may in consequence be deterred from venturing on a club tour again. Most of the men who form the average cycling club are just the average type of man one meets in the world every day. They cannot afford to spend their earnings without getting some adequate return, and they cannot afford, or are ashamed to acknowledge that they cannot throw their money about like the other fellow; and if led into expense which they cannot afford, they will simply keep out of the way next time, if they do not actually resign from their club. I am not ignorant of the difference in this respect between one club and another, but the principle applies to all alike, whether it is a club of laboring men with a half-crown subscription, or a club of "sons of their fathers" with a subscription of a guinea per annum. The object of the manager should be to keep clear of extravagance, and to prevent any one or more of the party clearing the cost of their tour at the expense of some less fortunate individuals."

Four C's Elect Officers.

The Capitol City Cycling Club, Springfield, Ill., one of the few clubs of its age still in existence, held its twentieth annual election of officers last week. The club was incorporated in 1887. These were the officials chosen: President, William E. Griswold; first vice-president, George Van Loon; second vice-president, Dr. Otis Siefert; recording secretary, Robert Orriney; financial secretary, Joseph O. Holland; captain, Dr. George B. Weakley; directors, J. D. Huber, William O. Hodges, and Charles Haendle.

Polite Pair in Pasadena.

"A horse and a motorcycle got into a mixup on South Los Robles avenue yesterday morning and considerable excitement resulted before the tangle was straightened out," relates the Pasadena correspondent of a Los Angeles paper. "The horse was ridden by Miss Maria Morse, while Arthur Fish was mounted upon the motorcycle. Neither of the riders was seriously injured, and both horse and motorcycle escaped without injury other than a few scratches. The street was muddy, however, and the clothing of the victims showed plainly that an accident had taken place. Both of the participants were willing to take the blame for the mis-

hap and there is some doubt as to how the thing happened. Miss Morse states that her horse suddenly bolted and that before she knew what was happening she had run against the machine. Fish says that the slippery condition of the road made it impossible for him to turn out in time to avoid the clash, although he saw the horse coming at him."

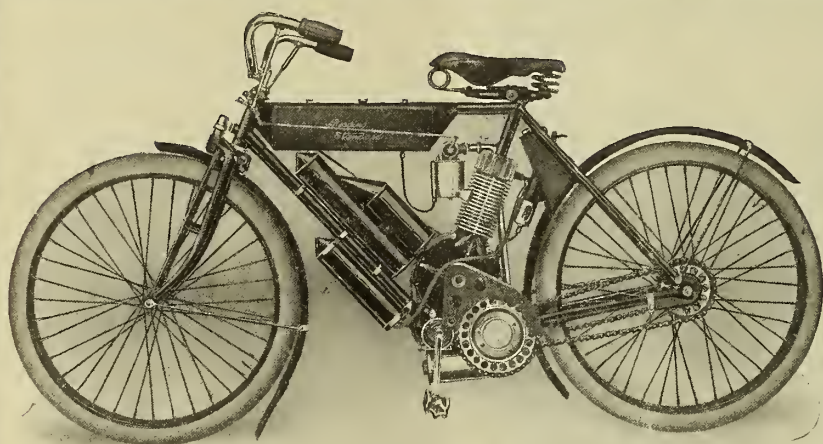
Thorwald Ellegaard, world's champion 1901-2-3-6; G. Poulain, world's champion 1905; Emile Friol, champion of France; Henry Mayer and Walter Rutt have been retained by one of the leading French manufacturers for 1907. The same firm have an equally strong team of 'pace followers.

From Race Track to Footlights.

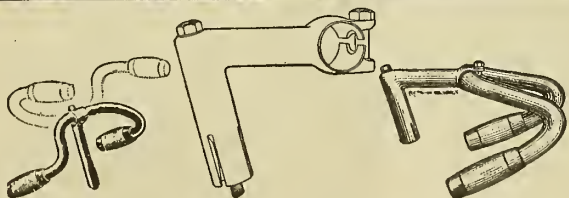
It is not every racing cyclist that aspires to operatic honors. Paul Bourillou, a former world's champion, has "gone into" grand opera and at present is singing the leading role in *Jongleur de Notre-Dame*, at the Theatre Royal de Grand at Roubaix. The old crack is a tenor and is said to be meeting with wonderful success.

Johnson Fixes Date of Start.

Axel Johnson, who will satisfy a craving for wanderlust, by making a 3,000 mile tour through the South, "working his passage" the while, expects to start from New York on the 19th inst. A trifle of mud or snow will not deter him.

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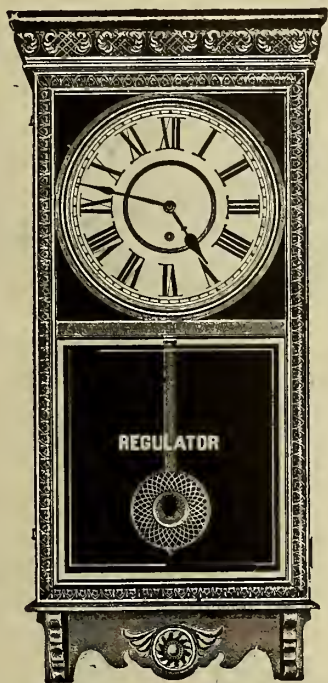
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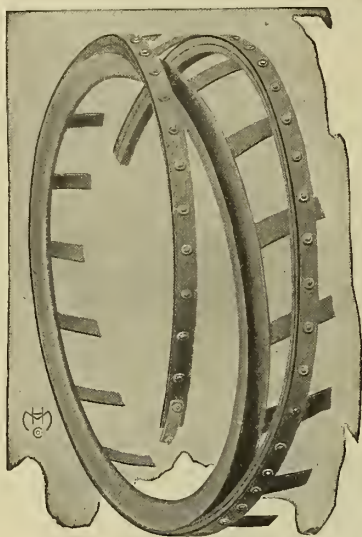
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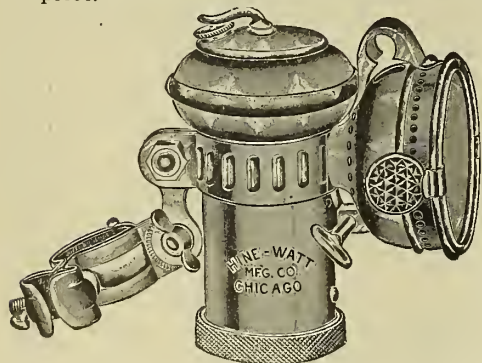
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Carbondales Decide to Disband.

Last week the Carbondale Cycle Club of the city of that name in Pennsylvania, at a meeting decided to disband and a committee consisting of Daniel Scurry, A. E. Watres, Robert McMillan, Isaac Singer, Henry Sharlock and Jacob Fuchs, members of the board of governors, was appointed to wind up the business of the club by the last of March, when the lease on the present building expires. The passing of the club will eliminate the only organization of its kind in the city. In the last few years it has degenerated into a social organization, but there were some of the members who still pin faith to the bicycle. The club was organized twelve years ago.

Detroiters Emulate the Early Bird.

Detroit's famous and time-honored Belle Isle 25-mile road race, which is promoted annually by the Detroit Wheelmen, will be again held this year on May 30th. Permission has just been received from the authorities and the committee will start to work immediately. There is some talk of holding a motorcycle road race in connection with it, but it has not progressed beyond the oral stage.

"Grover Gregory has purchased a bicycle," is the cheering news from Kansas, via the Emporia Gazette.

In Cans

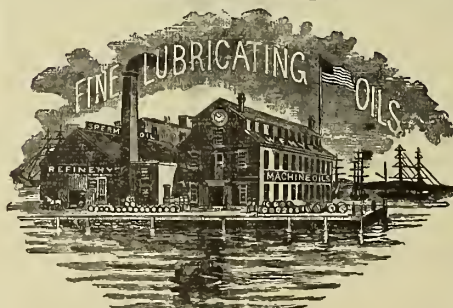
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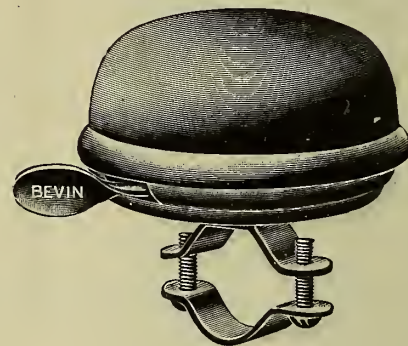
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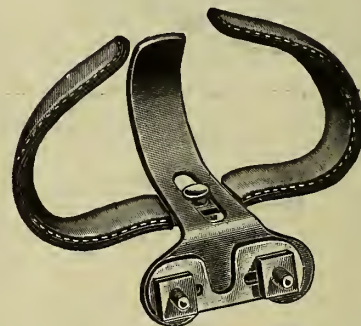
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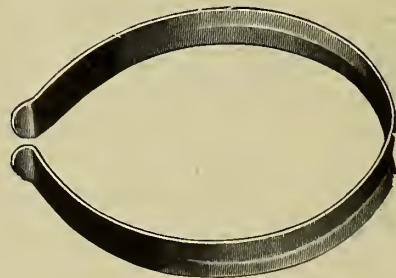
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FOUNDED 1877

Volume LIV.

New York, U. S. A., Saturday, March 16, 1907.

U. MAR 18 1907

No. 25

BUSY SESSIONS AT BUFFALO

Both Manufacturers' Associations "Do Things"—Cycle Show, Freight Rates and Publicity Discussed.

What undoubtedly was one of the best meetings ever held by the Cycle Manufacturers' Association was the session which occurred at the Lafayette Hotel, Buffalo, on Wednesday last, 13th inst. There were but four absentees and the remark of one of those present described the situation very happily.

"It really pays to become well acquainted," he said. "I used to think it was necessary to carry an axe but now I find there is little use even for a padded hammer."

A majority of those who attended arrived on Tuesday when several committee meetings were held and when W. J. Surre celebrated his election to the secretaryship of the big Corbin Screw Corporation by acting as host at a box party at the Lafayette Theatre.

The meeting on Wednesday was called to order at 10 o'clock a. m. when the election of Percy P. Pierce, who previously had been made temporary president, was made permanent. His father, George N. Pierce, whom he succeeded, was also present and entered warmly in the discussions.

The cycle show project was brought up by the report of D. P. Harris and F. C. Gilbert, who had joined with the committee of the Cycle Parts and Accessories Association in casting about for a suitable building in New York in which to hold the exhibition. The discussion which ensued was generally participated in and unexpectedly disclosed a considerable sentiment in favor of a purely trade show—one to which the general public would not be admitted. There was no doubting, however, that opinion strongly favored a show of some sort. George N. Pierce and F. I. Johnson being its heartiest advocates. It is probable that

definite action will be taken at the next meeting, which will occur May 8th, when figures and details will be presented.

The report of the freight classification committee, W. F. McGuire, F. C. Gilbert and Harry Walburg, disclosed an unexpected situation also. In substance, the report stated that owing to the "railroad agitation" now in progress throughout the country the tendency of the railroad managements is to increase freight rates rather than to reduce them and that the probabilities are that it will be some time before any marked reduction will be granted. It was decided, however, to open negotiations with the express companies with the same purpose in view.

The work of the publicity bureau will be continued for another year. This also was settled and the present committee, Harry Walburg, F. C. Finkenstaedt and E. S. Fretz will be maintained and will again operate in conjunction with the publicity committee of the accessories association.

Of the subscribers to the existing fund but one had defaulted full payment. For the 1907-08 season the idea is to levy assessments in proportion to outputs, J. F. Cox and F. I. Johnson being delegated to meet B. S. Keefer, the representative of

(Continued on next page.)

California Jobbers Come East.

The Bryte, Coates & Campbell Co., the San Francisco jobbers, have reversed the usual order of things. They have come eastward across the continent and established a New York branch, which temporarily will be located at 35 Warren street. It will be in charge of H. A. Bryte, a member of the company.

New Jobbing Firm in Atlanta.

Walthour & Hood is the style of a new jobbing firm which has commenced business in Atlanta, Ga. It is composed of Palmer Walthour, who formerly was connected with the Alexander-Elyea Co., of Atlanta, and Mr. Hood, who previously was in the cycle trade in Columbus, Ga.

READING NOW A CORPORATION

Three Hundred Thousand Dollar Company Takes Over the Remppis Business—Surprises in Official Make-up.

The conversion of the Reading Standard Cycle Mfg. Co., W. F. Remppis, proprietor, into the Reading Standard Co., a corporation of Pennsylvania, finally has been completed. The original outline of organization was carried out. The capital stock is \$300,000, of which \$100,000 is preferred.

The working board of the new corporation was made up at a meeting on March 11th, when the following officers were elected: D. F. Printz, president; D. P. Harris, vice-president; W. F. Remppis, treasurer; Harry Walburg, secretary.

That the board is a strong one is apparent. President Printz is one of the wealthy, level-headed merchants of Reading, who is not wholly a stranger to the cycle trade; at one time a cycle saddle factory was included in his several enterprises. Mr. Remppis has long been a figure in the trade and the fact that he came to the rescue of the original Reading Standard Cycle Mfg. Co. at a critical moment and saved it was an achievement of no small magnitude. Harry Walburg, the former Racycle man, who only recently joined the Reading establishment, is one of the best known and best liked men in the trade. But it is the appearance of D. P. Harris, the New York distributor, as vice-president of the company, that supplies the greatest surprise. Until his election to the office very few were aware that he had become interested in Reading Standard affairs.

The company is reported to be in fine shape and with sufficient orders in hand for bicycles and motorcycles to keep the factory operating to its fullest capacity for several months.

BUSY SESSIONS AT BUFFALO.

(Continued from preceding page.)

the parts and accessories organization, and with him to frame an equitable basis of apportionment.

Two more jobbers were O. K'd and added to the official list. They are F. M. Spinning, of Seattle, Wash., and Walthour & Hood, of Atlanta, Ga.

The next meeting of the association, which will be the annual meeting, was scheduled to occur at the International Hotel, Niagara Falls, on May 8th.

The members present were as follows: W. F. McGuire, Consolidated Mfg. Co.; W. G. Schack, Emblem Mfg. Co.; F. C. Robie, Excelsior Supply Co.; Charles Lonn, Great Western Mfg. Co.; A. V. Riddle, Hudson Mfg. Co.; F. I. Johnson, Iver Johnson's Arms Cycle Works; Harry Walburg, Reading Standard Co.; F. C. Finkenaedt, National Cycle Mfg. Co.; George N. and Percy P. Pierce, Pierce Cycle Co.; C. H. Ballew, Miami Cycle & Mfg. Co.; J. F. Cox and F. C. Gilbert, Pope Mfg. Co., and D. P. Harris.

While the Cycle Manufacturers' Association was in session in one part of the Lafayette Hotel, its "twin brother," the Cycle Parts and Accessories Association, presided over by President Crosby, was transacting business in another room in the same hostelry. Good spirit and fellowship prevailed and the work accomplished was all of a nature that dovetailed with the proceedings of the C. M. A., B. S. Keefer being commissioned to represent the C. P. A. A. in the conference with Messrs. Johnson and Cox, of that organization, which will establish the basis of the assessment to provide for the renewal of the publicity fund, and Messrs. Surre, Graham and Keefer, being appointed to meet Messrs. Harris and Gilbert to select the place and arrange the details of the mid-summer convention in July, to which the jobbers and the trade generally will be invited.

The C. P. A. A. also made sure that the publicity bureau would be continued, Charles A. Persons, D. S. Troxel and Ralph D. Webster, being constituted the publicity committee to work in harmony with the similar committee of the C. M. A.

One new member was added to the roll—Stevens & Co., New York.

The following were those in attendance: W. H. Crosby, The Crosby Co.; H. S. White, Shelby Steel Tube Co.; C. A. Persons, Persons Mfg. Co.; R. D. Webster, Eclipse Machine Co.; Z. H. Hanney, Judd & Leland Mfg. Co.; B. S. Keefer, The Standard Co.; C. E. Hall, C. E. Hall & Co.; D. S. Troxel, Troxel Mfg. Co.; W. H. Graham, New Departure Mfg. Co.; Frank Mossberg, Frank Mossberg Co.; and C. K. Anderson, Mutual Rim Co. W. S. Gorton, Standard Welding Co., was present at some of the preliminary meetings held on Tuesday, but was compelled to leave that night for Boston.

The accessories association will, of course, hold its next meeting at Niagara Falls, on May 8th.

HARTFORD MOVES MEN ABOUT

Resignations of President Midgley and Secretary Gilson Cause Many Changes—Anderson Now at Head.

Due to the fact that Thomas Midgley, president of the Hartford Rubber Works Co., loves Hartford not less, but Columbus, Ohio, more, and because J. W. Gilson, secretary and treasurer of the company, has accepted the sales management of the Mitchell Motor Car Co., Racine, Wis., a general moving up of officials occurred at the meeting of Hartford Rubber Works Co.'s directors on Friday last.

The shifting brings back to Connecticut J. D. Anderson, who several months since resigned the vice-presidency of the Hartford company to become the head of the G & J Tire Co., Indianapolis. Under the new order of things he will serve as president of both companies. Mr. Midgley resigned the presidency of the rubber company to reassume the executive office of his own particular pet, the Midgley Mfg. Co., Columbus, Ohio, which is, however, also a unit of the Rubber Goods Mfg. Co. It produces the rims used by the latter. His change was wholly of his own making, but he will not be entirely lost to the Rubber Goods tire manufacturing interests as the office of general consulting engineer of the Hartford, G & J, and Morgan & Wright companies was created especially for him in order that his ingenuity and rare ability as a factory manager and producer might be always available. When he came from Ohio, steel and not rubber was his field, but in two short years he very effectually demonstrated his capacity to readily grasp any situation that may present itself and to keep his feet on the earth at all times. J. D. Anderson, the new president, almost "grew up" with the Hartford Rubber Works Co. He became identified with it in 1895 and "knows it like a book." He also is a man whose success has not interfered with his likability.

Mr. Gilson has served 11 years with the Hartford Co., during which time he worked his way from traveling man to the titled office, incidentally making himself widely known and widely liked. The Hartford directors thought so well of him that resolutions expressing their appreciation were ordered engrossed.

V. B. Lang, who attracted official attention to himself while engaged in important capacities with Morgan & Wright, and who was brought to Hartford to act as vice-president and assistant general manager, was appointed full general manager, retaining the title of vice-president as well.

H. Plow, who has been assistant treasurer and assistant secretary, was promoted into the office of treasurer and assistant secretary, while E. R. Benson, long in

charge of the company's New England interests, was rewarded by the office of secretary and assistant treasurer.

Well Known Men in Retail Venture.

"Sports, Ltd.," is the style of a new company which will shortly begin business on upper Broadway, New York, selling bicycles, motorcycles, and a full line of supplies. A location in "automobile row" is now being sought. The R-S and perhaps a belt-driven machine will constitute the motorcycle line, while Hudsons will be the bicycles featured. The company, which is being incorporated under New York laws with \$10,000 capital, is fathered by P. R. Robinson, of the New York Sporting Goods Co., and D. P. Harris, both names being familiar to the trade in the jobbing line.

McGuire Returns from the Coast.

W. F. McGuire, manager of the Consolidated Mfg. Co., Toledo, who recently returned from a visit to the Pacific coast, reports that trade in that territory has let up a bit owing to the continued rains; in fact, the unsettled weather throughout practically the whole country has caused a temporary lull in business. Mr. McGuire states, however, that his factory is in fine shape and is now making prompt deliveries of not only Yale bicycles, but of Yale motorcycles as well.

British Motorcycle Finds an Opening.

The first British motorcycle to make its appearance commercially in this country is the Rex, the agency for which has been taken by the Franco-American Supply Co., of Chicago. The Rex is a belt driver and is made in both single and double cylinder models.

More Tubing in Prospect.

The Standard Welding Co. are making ready to erect an immense addition to their plant in Cleveland, Ohio. Among other things it will increase their production of tubing from 6,000,000 to 15,000,000 feet of tubing annually.

Union to Change Its Name.

The Union Mfg. & Specialty Co., Buffalo, N. Y., is about to change its corporate name to Charles E. Hall Co. The company manufactures chains and a number of cycle specialties.

The Retail Record.

Wareham, Mass.—W. G. Woodruff, reopened store.

Rahway, N. J.—Boland Bros., sold out to James McCollum.

Curtiss Building and Busy.

The G. H. Curtiss Mfg. Co., Hammondsport, N. Y., is erecting a 30x60 addition to its plant, which incidentally is being operated 24 hours per day.

MUFFLERS IN COMPETITION

Types Tested in British Trials and the Method of Mounting—Results However Not Yet Ready.

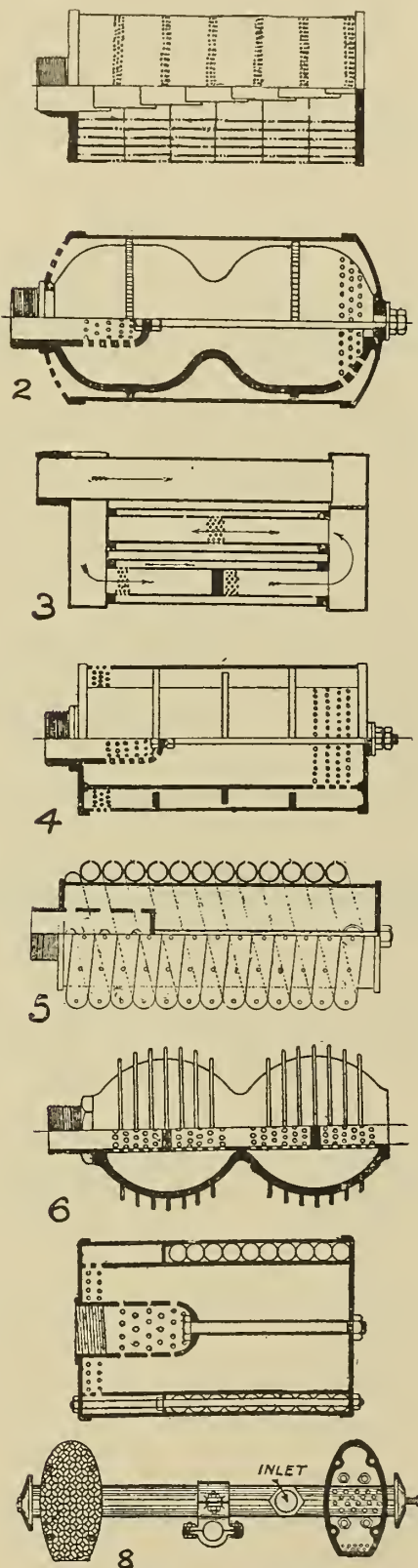
Nine different types of muffler were submitted for trial in the silencer competition held under the auspices of the Auto Cycle Club, of Great Britain, held during the latter part of last month. According to the time-honored British custom, however, the results will not be announced for some time to come.

During the trials each device submitted was tested under standard conditions as mounted on a $3\frac{1}{2}$ horsepower motor fixed on a bench. Connected with the regular exhaust pipe was a three-way piece leading to a standard muffler which always remained connected merely for reference purposes, and to one of the apparatuses to be examined. A suitable three-way cock provided means for deflecting the motor exhaust into either of the two mufflers at will. Between the cock and the motor a pressure gauge was attached by means of which the back pressure on the motor was measured. A brake was attached to the fly wheel of the motor which was loaded with a uniform weight of about 15 pounds, and under this resistance the engine was run at a constant speed of 1,500 turns per minute. The actual differences in noise made by the different devices was obtained by means of an audiometer.

As to the mufflers under trial, reference to the accompanying illustration shows the general method of construction and principles upon which they depend. That indicated as No. 1, the Wat-Not, consists of a simple cylinder divided into six compartments, each of which is made to receive a portion of the exhaust directly. A series of baffle plates, cylindrical in form surround the openings through which the gases are admitted to the chambers, and the final exhaust takes place through a series of small holes provided in the plates and in the outer shell. The Radio, No. 3, consists merely of a stack of tubes through which the gases are made to pass, the route being from end to end of the tubes, which are connected in series. The whole is surrounded by a closed casing except for the inlet and discharge openings.

Somewhat different in its nature, is that shown as No. 5—the Montgomery—which consists of a cylindrical expansion chamber surrounded by a coil of tubing, the latter being last in the path of the exhaust, which is delivered from this point to the atmosphere through fine perforations in the walls of the coil. Nos. 2, 4 and 6, entered by a single firm, under the name of Sharpe's Universal Silencers, are known as the Universal, the Paragon and the Victoria. In the first, the exhaust gases pass out through

the second bulb of the expansion chamber and escape from holes at the opposite end of the cylinder. The Paragon differs from this only in that the expansion chamber



consists of a plain cylinder instead of the double bulbs. The Victoria embodies two bulbs surrounding a central tube in which are mounted a couple of baffle plates which serve to deflect the gases into the two bulbs successively. The device marked 8 is noteworthy in that in addition to its

function as a muffler it also performs the duties of a foot-warmer. It was entered by G. Aldington. No. 7 is so constructed that the exhaust escapes from the central chamber by threading its way through an expansion chamber which is packed with aluminum balls of small diameter, and on this account is beyond a doubt the most remarkable of the entire lot. The remaining device is not shown.

His Homemade Motorcycle Lamp.

"On account of the high speed of running, and the consequent jolting, it has been found almost impossible to successfully use an ordinary bicycle gas lamp on a motorcycle. It has the required development of the separate generator type of lamp. But a rider here in Pomona has contrived one which, as far as I can judge, answers the purpose as well, and gives as strong a light, and casts it as far ahead, as the regular motorcycle size," writes H. H. Wheeler, of Pomona, Cal.

"He took a Solar bicycle lamp and removed the water reservoir and carbide cup. Then he fastened the door (with its lens) of another Solar lamp in front of the lens of the other, making a double door and lens. This can be securely fastened to the head or handle bar stem, and being of light weight will withstand the excessive vibration, or it is so small and light that it can easily be carried in one's pocket. Next he took the lower part (water reservoir and carbide cup) of an old Majestic lamp, clamped it securely to lower tubing (it could be clamped to upper tube or forks), and connected this with the head-light by a rubber tube. I don't understand the laws of light well enough to explain it, but the double lens throws the rays more like a searchlight, and does not diffuse it. I should say that it threw a good strong light more than 100 feet ahead, while I know that an ordinary bicycle lamp does not give light enough to ride safely at even 12 miles an hour on ordinary roads—I should say not more than 25 or 50 feet ahead. To prevent carbide dust from getting into the gas tube and possibly clogging the burner, I put a loose wad of cotton into the gas tube."

Terre Haute Dealers Make Merry.

Terre Haute, which is still in Indiana, is one of the few places where the retail bicycle dealers continue to "get together," not only in a business way, but a social way as well. Last week the Retail Bicycle Dealers' Association held a frolicsome evening at J. Fred Probst's place, where the guests upon arriving were each put through a dark room initiation of sliding rollers and cold water needle jets. Music, conversation, smoking and Dutch lunch filled the evening's program, which was punctuated by the explosion of trick matches and the fizzing of loaded cigars. A number of western trade travelers were invited participants in the hilarity.

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NEW YORK, MARCH 16, 1907.

Let It Be an Open Show.

It is to be earnestly hoped that the sentiment which developed at the Buffalo meeting of the Cycle Manufacturers' Association in favor of a show for the trade only will not gain strength.

With the pendulum now swinging unmistakably upward a cycle show can be made to add so much force to the swing and to serve so many other excellent purposes that it would be a misfortune if the fullest advantage were not taken of the opportunity. To attain the maximum benefit should be the aim, and this can be secured only by a show open to the general public. From a restricted exhibition—a show for the trade only—the minimum result would be likely to flow.

The mere holding of a cycle show in itself will be in the nature of a tonic. It will bring home to very many and in most direct fashion that the bicycle is not only very much "alive," but that it is again uplifting itself aggressively. This highly desirable effect can be achieved only by publicity and speaking practically no publicity can be obtained with a trade show. Publicity and lots of it should be the keynote of the movement. With a popular admis-

sion fee and a "paper" night or two, such as even the automobile exhibitions have found to be desirable, there need be no fear that the public will not be attracted to an "open" show. The display of motorcycles and their accessories will be sufficient to assure it. The interest in those wares is reaching a high pitch and since a majority of the members of the C. M. A. now are engaged in producing motorcycles, there need be small fear that the "tail will wag the dog" to conspicuously. There is much that is new and interesting in bicycles themselves. There is no doubt but that dealers and jobbers will as readily attend an open show as a "closed" one and there is also no question that from the number very many who might be attracted by the motorcycles, not a few desirable cycle agents could be secured.

If a show is to be held, by all means, let it be an open one.

Snuffing the "Fat" Spark.

Getting a "fat spark" has been such a time-honored fetich, dear to the heart and vocabulary of almost every motorcyclist that it comes as something of a blow to have a prominent English experimenter announce it as his conclusion, from scientific investigation, that its virtues are a myth and that in power results it has no advantage over a lean spark or any other kind of a spark that will ignite the charge at all. With a mass of technical data he submits that the size and brightness of the spark cuts no figure whatever and that on most motors entirely too much current is used.

While apparently exploding a theory relating to engine explosion that has heretofore been regarded as sacred and fundamental, this new doctrine is not to be accepted by the layman as cause for relinquishing his efforts to have as "fat" a spark as he can get. It may be true that in actual power results in the engine the "fat" spark is no better than its emaciated brother, but the "fatness" indicates a healthy surplus of current that will insure a spark in the cylinder under high compression and other opposing conditions, where the "thin" spark might easily get discouraged and quit business. The value of the worthy experimenter's labors lies chiefly with the coil makers and the technical theorists.

For the man who is not in a position to change his ignition equipment to take advantage of the ideas brought out in the course of the experiments, there is no rea-

son for attempting a reduction in current. It is true that by piling on too heavy a primary current the coil may be injured, but the number and weight of the cells necessary for such a result removes the temptation to any indiscretion of the sort. Plenty of current and a "fat" spark may, therefore, still be held as desiderata, despite the iconoclastic findings of the scientist. The motorcyclist may take comfort from the experiments in knowing that they show many points of superiority for the non-trembler coil system common to motorcycle ignition equipment.

The Original Good Roads Advocate.

With the gathering together in Pittsburg this week of delegates to what is called the biggest road improvement convention ever held, that oft-repeated slogan that the automobile is responsible for the good roads movement even as it is responsible for the increasing mileage of good roads in this country, is voiced once and again with ever increasing stress. How false is this crediting of the results of labors which were begun fifteen and twenty years ago to a movement which was hardly more than nascent ten years ago, is apparent to all whose memories reach back to the period when the real good roads movement was begun. Came first the bicycle, and then, because with its puny solid tires and high wheels the struggle along the common highway was almost impossible to the cyclist, the agitation for better roads commenced in a small way and later with a potency which never could have existed had it not been for the enormous popularity of the bicycle and the well-organized interests of the cycling fraternity.

When it is considered that even before the three or four hardy experimenters who are called the pioneers of the American automobile industry had begun to trifle with the crude mechanisms which presaged their present achievements in the automobile line, there were already in existence good roads agitators, good roads leagues, and over all, the League of American Wheelmen, which during its most active period accomplished more for the cause than the automobile interests have yet done—it appears that the credit is largely misplaced, at least insofar as the matter of actual responsibility for present highway conditions is concerned.

The facts are these, that after the automobile movement became sufficiently well-defined to be recognized as a tangible and

progressive factor in the country and had somewhat passed beyond the stage of hysterical ridicule, the necessity of good roads for the automobile being just as great as the necessity of good roads for the automobile, caused the leaders in that interest, many of whom already had been "plugging" good roads for some little time, to break out again with a new word in their texts. It was precisely the same good roads movement, using all the old inducements and methods which had been worked out under the bicycle regime, only revamped and trotted out with a new and more fashionable excuse. It were a shame to discredit the value or real power of this work, nor would it be fair to deny that much has been accomplished by the automobile interests.

In this same connection it is twice a shame that the real founders of this work are not given better recognition. First, it is not right that the automobile should be given the entire credit for a movement in which it has only played the part of cultivator and reaper, and second, it is a pity that the first and most effective organization ever to assert itself in the cause, that is to say, the League of American Wheelmen, which formerly played such an important part in proceedings of this nature, is no longer represented at such convention. This tendency to ignore the real worth and work and influence of the bicycle interests in one of its most important aspects is one which is bound to go on until, through frequent repetitions of such assertions as this, the real truth becomes entirely forgotten. In preventing such a contingency, however, and constantly recalling to mind the part which the bicycle has played and is yet playing in the good roads movement, is one of the greatest and best opportunities for bicycle publicity, and one, moreover, which originally was valued almost as highly as the good roads millenium itself.

No wrench is handier to use than a pipe wrench, and none but a pipe wrench leaves its mark on the nut—the trail of the plumber is found wherever the village harness-maker repairs stoves and motorcycles.

Anything will do when you are in a hurry, but twenty damns in four languages and even two hours' overhauling cannot undo the results when the shop boy markets oil in a dirty dipper.

ALCOHOL VS. GASOLINE

Motors Can Be Run with Higher Temperature and Higher Compression—Results of Heating Carburetter.

"In the case of denatured alcohol, which it is hoped may become available at a reasonable price before long, the same form of vaporizer as that used with gasoline will satisfy the conditions, except that it will receive a preliminary heating so as to confer upon the alcohol vapor the same degree of volatility as is possessed by gasoline at ordinary temperatures," says Prof. Elihu Thomson in the *Electrical World*.

"In the same way, by raising the temperature of the vaporizer still more, it is quite possible to use liquid fuel of much higher boiling point, and even kerosene oil. The writer has, in fact, repeatedly run an engine with the vaporizer arranged to have its temperature controlled, and employed gasoline, alcohol and kerosene oil interchangeably. An engine starting cold with an arrangement for allowing the exhaust gases to heat the vaporizer may burn a small amount of gasoline at the start, and on the attainment of a temperature sufficient to vaporize alcohol, the alcohol may be gradually turned into the vaporizer, and if the arrangement is such as to still further increase the temperature of the vaporizer, kerosene oil may finally replace the alcohol. But it is hoped that it will not be necessary to go so far.

"It will doubtless take considerable time, possibly two, three or more years, before the arrangement or organization for the production and distribution of the denatured spirit is sufficiently perfected to give us the product at a price which will compete with that of gasoline in the denser populated districts where the methods of distribution of the oil products are already in a high state of development. In the more sparsely populated districts, however, where, on account of the distances for distribution and inconvenience of storage gasoline now commands an advanced price, it should not be long before denatured spirit should be able to compete. It is fortunate that in spite of the considerably less heat value possessed by alcohol, as compared with any of the oil products such as gasoline, the efficiency of the engine may be increased in the case of the alcohol by increasing the compression so as to make up the difference. The limit of compression in the ordinary type of engine is naturally dependent upon the pre-ignition point of the charge during compression, and inasmuch as there is always a certain amount of the prior heated exhaust gas mixed with the new charge, while the cylinder walls are also necessarily at a considerably higher temperature than is the water in the jacketing, or than is the radiating metal where air cooling is employed, it is obvi-

ous that pre-ignition, when the heavier vapors are employed, must be regarded as setting the limit of compression which is feasible. Upon this degree of compression, however, the efficiency of the engine in large measure depends. With the employment of alcohol the compression may be so raised that two things are accomplished: first, there is a greater extraction of energy on expansion, resulting in a cooler exhaust; second, the cooler gas which remains in the cylinder and is mixed with the new charge results in further rendering pre-ignition improbable.

"It is true also that such a mixture would stand higher temperature of the walls of the combustion space without pre-igniting; consequently an alcohol engine can be run with the water boiling vigorously in its water jacket, a condition which almost invariably leads to pre-ignition difficulties with oil engines or gasoline engines unless the compression be kept quite low. It was noted in the Banki experiments that with oil engines the introduction of a certain amount of water in the form of steam or spray along with the fuel charge increased the efficiency of the engine. The commercial alcohol in any case will contain from 5 per cent. to 10 per cent. of water, and in the writer's experiments there was a tolerance of 15 per cent. to 20 per cent., or in other words, about 80 per cent. alcohol could be used. Below that point the ignition became somewhat irregular.

"There is no need to dwell upon the superior safety of alcohol owing to its higher boiling point and its condition of being perfectly miscible with water in all proportions.

"It has sometimes been objected that the products of partial combustion or oxidation are likely to be acid or corrosive for such a metal as iron. If experience should show any considerable disadvantage in this, such corrosive action would only take place with the engines out of action or resting between runs, and doubtless could be neutralized by suitable means such as oil or alkaline substances introduced at the time of a shutdown lasting for a period more or less prolonged. Doubtless also a proper selection of materials for valves or valve seats subject to corrosive action would eliminate all difficulties arising, if any exist."

"Zackingummi" as a Substitute.

A company has been formed at Prague, Bohemia, for the manufacture of an artificial rubber, called "Zackingummi," invented by a Swedish engineer. It is stated that the cost of this material is but a third of that of rubber and that it has been used for various purposes, such as for filling motor car tires, to which it absolutely attaches itself, and for packings, etc. It is claimed that it is unaffected by the atmosphere and will not perish as does rubber, and that experiment shows that it is many times stronger.

MORE LAW FOR MOTORCYCLES

Flood of New Bills Inundates Connecticut Legislature—All Seek to Raise the Registration Fee.

Connecticut, which has been one of the few states to escape an overflow of motor vehicle legislation, is in a fair way to make up for "lost time." No less than seven bills of the sort have been introduced into the legislature now in session, and in each of them motorcycles are involved. At present they are subject only to a perpetual registration fee of \$1 and are required to display one inch numbers in "any old place," while automobiles must carry the official four inch tags which cost \$1 extra.

Representative Tucker, of Simsbury, however, is seeking to so amend the existing act that all motor vehicles under 30 horsepower shall pay \$3 annually, and those in excess of that rating, \$5. Representative Bartlett of Windham, has his own little bill, setting the annual fee at \$2, while Representatives Griffin, of Granby, and Alsop, of Avon, have each introduced more pretentious measures. The latter would impose an annual fee of \$1 per horsepower on owners and a fixed fee of \$10 on dealers, while Mr. Griffin's bill, which bears the ear marks of the "real thing," would create a state commission of motor vehicles and fix a registration fee of \$3, and a license fee of \$2; nothing is said about their being paid annually, but the reference to licenses specifically makes the run indefinitely.

All of the bills provide for one-inch numbers for motorcycles, but otherwise they are placed in the same category with automobiles. The Federation of American Motorcyclists already is moving in the matter.

Rhode Island Strikes at Road Racing.

If a bill which has been introduced into the Rhode Island legislature by Senator Elbridge I. Stoddard, becomes a law, there will be no more bicycle or motorcycle road races or hill climbing contests in that state. The bill of Mr. Stoddard is an amendment to the present law and not only specifically prohibits racing, but it also fixes a speed limit of fifteen miles an hour; the existing act does not limit speed. There can be no cry of unjust discrimination, however, as the bill applies to horses and bicycles as well as to motorcycles and automobiles. The penalty in each case is fixed at from \$10 to \$50, one-half of which will go to the informer. Another measure which relates to motorcycles was introduced by Senator Charles H. Ward. It will make it obligatory for every person in command of an automobile or motorcycle which collides with or causes injury to any person or property on the public highway to stop and give his or her name

and address to the person or persons injured or to someone in their behalf. Both bills were referred to the committee on judiciary.

America Again Scores in New Zealand.

New Zealand ought to have a pretty good opinion of American motorcycles. For three successive years the hill climbing championship of that colony has been won by an American production—the Indian, the same man, W. E. Thompson, of Christchurch, riding the identical machine

"MAJOR" TAYLOR MAY RACE AGAIN

Paris has Fixed His Date of Sailing but Not All of the Details are in Exact Agreement.

"Major" Taylor, the negro crack, whose star shone brightly during 1901, 1902, and 1903, but suddenly was extinguished in 1905, when he refused to meet National Champion Frank L. Kramer in a series of match races and was suspended for life



THOMAS WINNING IN NEW ZEALAND FOR THIRD TIME

on each occasion. He won the honors for 1907 in the annual contest in January, as usual, beating out a choice collection of British and other foreign machines. That the hill is steep and tortuous and that Thompson is no featherweight, the accompanying illustration serves to show.

Skater Blackburn Beats Bicyclist Brooks.

A five-mile race between George Brooks on a bicycle and William Blackburn on roller skates was the feature of the regular Tuesday night meet at the Lenox skating rink Tuesday night. Brooks took the lead at the start, but at the half-mile mark the roller skater began to gain, and in two or three laps passed. Blackburn then held the lead until the finish, winning out in a fast sprint by 300 yards. The track was 20 laps to a mile.

Vanoni to Ride at Salt Lake.

Charles Vanoni, one of the most popular of the foreign six-day riders, arrived in New York, accompanied by his wife, this week. Vanoni has a contract to ride at Salt Lake during the season, and will undoubtedly make friends with the Mormon "fans." Although of French-Italian extraction, Vanoni is a native New Yorker.

for breaking his contract with the Parisian promoters, is really going to get in the game again, according to L'Auto, of Paris.

In December of last year the Bicycling World intimated that such might come to pass, following a visit of Robert Coquelle to the negro's home in Worcester, Mass., but as nothing has been heard of the matter since, it was supposed that the arrangements had fallen through. That Taylor will actually ride again is vouched for by Coquelle, who writes that the negro rider will sail for France on April 10, and will at once begin training. The article in question also contains a cablegram from its correspondent in which it is stated that "Major" Taylor personally has seen Chairman Kelsey of the Board of Control of the National Cycling Association and asked that his punishment be commuted.

Mr. Kelsey says this is not so—that he had expected to hear from Taylor, but that up to the present time he has had no word from him. Kelsey also stated that the N. C. A. will not stand in the way of Taylor's reinstatement should the negro make amends to the directors of the Buffalo Velodrome with whom he broke his contract in June, 1905, and for which act all the affiliated tracks in the world were closed to him.

FINDS FAULT WITH N. C. A.

Critic Airs His Views About Its Sins of Commission and Omission—Rules That Are Not Enforced.

"Yes, sir; I mean it. There are too many riders in this country who have too little regard for the National Cycling Association. Why? Well, I'll give you one reason, or perhaps two or three, and may be you'll understand before I have finished," said the Walking Compendium the other day to the Seeker of Knowledge.

"To begin with," the Walking Compendium went on without ado, "there is too much dead wood in N. A. C. officialdom. You wanted to know why the ruling body is not respected by the rank and file, so let's not mince matters. This will be a plain talk. I read in the *Bicycling World* the other day that the National Cycling Association had held a nannual meeting. I was much surprised and correspondingly gratified to see that it had transacted so much business, but one of the most important things, it seems to me, was left undone. That is to put some real live men in the positions provided in the officialdom. The Association now has for a president a real cyclist who can and will infuse new blood into its veins but he cannot pump corpuscles of energy into veins that have long since dried up.

"Take for instance the Board of Appeals, which should consist of men very much 'on the job' and who have a comprehensive grasp of the racing situation. 'Samuel A. Miles, Albert Mott, George A. Needham, and N. E. Turgeon!' Since when have they taken an interest in bicycle racing? I must have been asleep for the last five years, if they are working for the game. Right there you have a lot of dead branches that can well be removed. Reason No. 1.

"Another reason: The rules formed by the N. C. A. are not enforced and it seems like a big joke to make rules and not see that they are carried out. A year ago, at the annual meeting, a rule was made by which teaming was made absolutely prohibitive under penalty of prompt suspension. How many riders have been suspended to date? And yet the riders made no secret of it in Salt Lake all last season, and once when the referee was appealed to in a race in which there was open team work, after he had announced that any rider caught in a combination would be disqualified, he answered the protestant somewhat in this fashion: 'Well, what can you do? It pleases the people.' Fine!—coming from a referee, isn't it.

"I was reading over the constitution and by-laws of the N. C. A. not long ago and I was surprised to see some of the old provisions that were possible in the 'boom'

days, but now—Fancy providing for the payment of a salary of \$3,000 to the chairman. I don't say that Kelsey may not be worth it or that he ever receives that sum, but the by-laws provide that he shall receive all the revenue up to that sum. Times have changed, and so has cycle racing, and it seems to me salaries should change with them.

"There seems to be a great tendency for a purification of the amateur ranks," said the Walking Compendium, suddenly switching from his original subject. "Well, let it come, only I am afraid it is a little late. There were thirteen amateurs turned professional at the last meeting. Where are the old offenders? If amateurism is to be washed and brightened up a bit it might as well be done thoroughly.

"Here, look at this record of novice winners, for instance. Here is plenty of evidence that the Board of Control may have any time they want it. I think a 'ringer' in a novice race would steal a cent off a dead man's eyes. A novice 'ringer' is worse than a second-story thief, and any time one is caught he ought to be ruled off the track and road for life, or for a long time at any rate. 'I'm a good amateur as long as I don't get caught!' That's what they all say. I am a stickler for either pure amateurism or else no distinction at all. Once tainted with professionalism, always so. Now tell me what these 'novice' riders want with two or three medals, yet they have won them according to the programs. It is easy to 'spot' them, and it ought to be the N. C. A.'s business to see that they are spotted and tucked away for keeps.

"Does not every rider who has ever raced know that it is against the rules to ride on tracks that are not sanctioned by the N. C. A.? How many amateurs are there that have not gone pot hunting? And how many would 'pass up' one if they knew about it? Last summer several Brooklyn riders went down to an outlawed track in South New Jersey and competed there—not once, but several times. The chairman of the Board of Control knew about it at the time, but these culprits were not suspended. They kept right on racing on road and track. It was common talk that they came back with real money and not prizes, but no effort was made to find out if that was so.

"It is said that a new broom will never sweep clean. Well, may be so, but it is a safe bet that it will raise more dust than a broom that is worn to stubble. That is what the N. C. A. needs—more new brooms. It has one or two new ones numbered among the collection but they are not sufficient. If the stated object of the National Cycling Association—the direction of bicycle racing; the prevention, detection, and punishment of frauds therein, uniformity in the government of the sport; method of conducting race meets, and all other interests which would mutually benefit this as-

sociation, the racing men, and the public—is to be carried out it would be well to have hands on its governing reins that would consider the interests of the racing men, the interests of the track owners and race promoters, and the interests of the public impartially and not solely the interests of the track owners.

"If the present rules are out of date, make some new ones, and after they are made see that they are enforced, and not violated without fear of punishment. The N. A. C. did something at its last annual meeting. Let it not stop there. There's lots of room for more improvement."

May Prohibit Motors on Dresden Track.

Unless the Minister of the Interior nullifies the order of the Prefect of Police of Dresden, there will be no more motor-paced races on the famous track of Ullrich. There is a hospital next door the track and the director of it has protested against the use of motors on the track, claiming that they make so much noise as to be a nuisance and objectionable to the patients in the hospital. The Prefect of Police has ordered that motors be prohibited from the track, but its owner has appealed to the Minister of the Interior. The peculiar feature of the case is that the hospital was not built yesterday. In fact, it was established long before the track was built and it is surprising that the hospital authorities should only now discover that the motors are objectionable. Walthour will no doubt "relish" the decision. He was billed to ride there on March 31st, and contracts are not as plentiful for him this year as they were last.

Tigers Announce Home Trainer Meet.

Just who will be present is not stated, but the Tiger Wheelmen of New York are advertising exhibitions and match races by "noted professionals," as a feature of their home trainer meet to be held on April 13th. The race is announced as being for the championship of New York and New Jersey and is open to all clubs. A silver loving cup will go to the club scoring the most points and four prizes of "unusual value" will be given the riders making the best time for the mile. Entries close with the Tiger Wheelmen on April 11th.

Motorcycle Races in Doubt.

Although it has been stated that ten days of motorcycle racing in October will be included in the program of sports at the Jamestown Exposition, nothing of the sort has been definitely settled. A couple of New Yorkers have made overtures to handle such a project on a percentage-of-gate-receipts basis, and F. A. M. sanction has been sought but as a four-lap cinder track built for foot racing will be the only course available and whether it can be altered to suit motorcycle requirements is the point on which the project hinges.

FAST ARMORY WORK IN BUFFALO

Delling Could Not Get Better Than a Tie for First—Busy Times for Hospital Corps.

Although Edward Delling was in good condition last Saturday night, 9th inst., he failed to "cop" both the bicycle races at the 74th regiment meet in Buffalo, as has been his wont this season. Delling and Fred Schudt fought a battle royal in the two-mile point race and finished tied for first place, Delling winning the toss. In the mile race Delling made a good ride from scratch, but was unable to overhaul one of the long markers before the tape. Falls were frequent and the hospital corps of the regiment got plenty of practice in carrying off the fallen men in stretchers just for the fun of it.

There was no loafing in the two-mile race and any rider that desired to be counted in the final heat had to keep in front to get points to qualify. The final heat was a wild scramble from the crack of the gun and just as the bunch was rounding the last turn several went down. Delling and Schudt were so well matched that they landed 54 points each, Delling winning first place by a flip of the coin. J. M. Tanner got third place with 34 points.

The heats in the one-mile handicap were faster and more exciting than the final, which was won by Adam Fischer from the 50-yard mark. Delling from scratch got second, and McCracken, 35 yards, finished a close third. E. P. Young slipped on one of the turns and carried Tanner to the floor with him. The summaries:

One-mile handicap—First and second in each heat and third in two fastest heats to qualify for final. First heat—Ray Sauter (90 yards), first; Edward Arenz (30 yards), second; John Newland (95 yards), third; time, 2:15. Second heat—H. J. Young (85 yards), first; Charles McCracken (25 yards), second; C. J. Smith (60 yards), third; time, 2:16½. Third heat—Adam Fischer (50 yards), first; Joe Tanner (90 yards), second; J. N. Tanner (scratch), third; time, 2:18. Fourth heat—Ed Delling (scratch), first; C. Mortimer (65 yards), second; W. W. Robertson (85 yards), third; time, 2:13½. Final heat—Adam Fischer (50 yards), first; Ed Delling (scratch), second; Charles McCracken (35 yards), third; time, 2:20. Also ran: Ray Sauter, Ed Arenz, H. J. Young, John Newland, Joe Tanner, C. Mortimer, and W. W. Robertson.

Event No. 2—Two-mile lap race. Two men with highest number of points in each heat to qualify for final. First heat—J. Schieder (60 points), first; Al Mercer (55 points), second; time 4:46½. Second heat—J. M. Tanner (66 points), first; Ed Arenz (53 points), second; time, 4:45. Third heat—Ed Delling (79 points), first; R. J. Hoo-

ver (42 points), second; time 4:54½. Fourth heat—Fred Schudt (73 points), first; Charles McCracken (48 points), second; time, 4:52. Final heat—Tie between Ed Delling and Fred Schudt, each having 54 points. Delling won the toss. Schudt second, J. M. Tanner (34 points), third; time, 4:41½. Also ran: Al Mercer, R. J. Hoover, E. Arenz, and Charles McCracken.

McGregor Leads Garden City Handicap.

In the face of the fact that the weather was none too promising the Garden City Wheelmen brought off its long scheduled five-mile handicap road race on Sunday, 3d inst., at the regular East San Jose course. The disappointments of former postponements seemed but to add to the crowd for there were present at the finish nearly 500 people.

Although they rode hard the scratch men were not successful in overhauling the long markers. Elmer McGregor, a hitherto unheard of rider, was the winner, but he certainly had to ride to get the laurels. In the last hundred yards or so Kruisch challenged McGregor, who was leading at the time, and together the pair came down to the tape neck and neck. McGregor had the speed and he drew ahead about a length just at the finish. McGregor had a lead of a minute and a half and he covered the distance in 14 minutes 56 seconds, C. Chaboya made the best time, his being 13:15. The prize winners were:

1, Elmer McGregor, 14:56; 2, J. Kruisch, 14:56½; 3, C. Chaboya, 13:15; 4, Stone; 5, Carl Showalter, 13:30; 6, Pete Castro, 13:31; 7, L. Magginni.

Sport After Election Meeting.

The Garden City Wheelmen and Motorcycle Club of San Jose, Cal., held its semi-annual election of directors on Monday, 4th inst., and the following were elected: W. A. Hope, L. Normandino, M. Maggini, J. A. Benson, George F. Lucier, B. C. Dale, Frank Hodges, E. B. Shelbourne, and B. Johnson. The directors will meet later and elect officers, following the usual custom. After the election the fast men attempted to set up records for two miles. They competed for a medal donated by J. A. Benson and the aggregate time of each rider for two 2-mile heats determined the winner. Here is the way they finished: 1, H. Waltz, 4:48; 2, Pete Castro, 4:49½; 3, C. Chaboya, 4:53½; 4, W. Chaboya, 4:55½; 5, J. D. Byler, 5:15½; 6, F. S. LeRoy, 5:17½.

Tigers Wave Soulier Bon Voyage.

Charles P. Soulier, of the Tiger Wheelmen left Thursday morning on La Savoie for France, where he will remain during the summer. While Soulier is going abroad principally for a visit to the old home, he says that he will ride in all the amateur races that occur conveniently. A delegation from the Tiger Wheelmen was at the pier to see him away.

MOTORCYCLES TOOK THE HONORS

California Hill Climb Gave Them Opportunity to Run Away from Cars—Winner's Splendid Time.

Although greatly handicapped by crowds that overran the course, the motorcyclists figuratively "put it all over" their big cousins, the automobilists, in the hill climbing contest held outside Los Angeles on March 2d. The climb originally was scheduled for Washington's birthday, but had been postponed on account of rain.

The course was different from the one over which the race was run last year and the dangerous double curve near the top was eliminated. This year practically a straight incline a little longer than a mile—between Pasadena and Altadena—was secured, and as a result the contest was more interesting and better times were made in the various events.

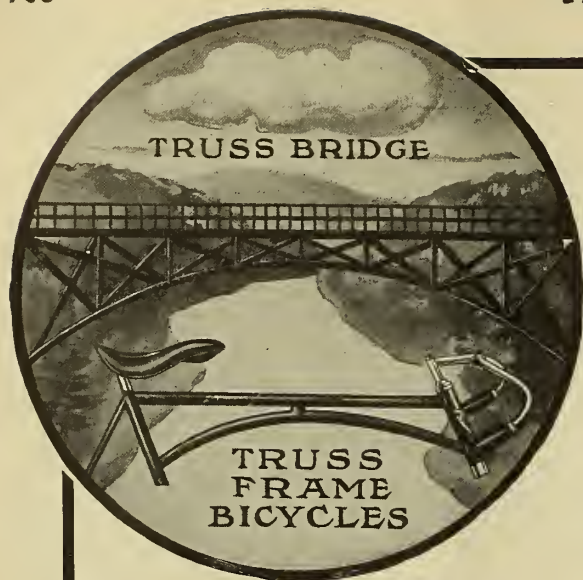
No better course for a hill climbing contest than this oiled road is to be found in California, so it is little wonder that 5,000 people journeyed out to the scene of action from the surrounding towns. This fact caused the only disagreeable feature of the meet. The people seemed to have little regard for their lives and persisted in running out on the course whenever they heard a car coming. They did this all the time the automobiles were being sent up and by the time the last event—for motorcycles—was called, the people had become so reckless that they seriously interfered with riders on the motorcycles.

Despite this interference the motorcycles, as stated, really carried off the honors of the day. Twenty-six automobiles had previously had time trials, but of this lot only one was able to make better time than was made by the winner in the motorcycle class. C. F. Dunham was the winner and he covered the course in 2:24. With the exception of the one automobile which climbed the hill in ten seconds less, the next best time, made by an automobile, was 2:31. The official times are given below:

1 C. F. Dunham, Motorcycle.....	2:24
2 E. W. Hoag, R-S.....	2:32½
3 James Mazzie, Curtiss	2:35½
4 L. A. Hill, R-S.....	2:37
5 Lord, Harley-Davidson	2:44½
6 C. W. Riden, Indian	2:48
7 W. G. Collins, R-S.....	3:08½

Oaklands Win on the Rollers.

McTige and Bassett, representing the Oakland Wheelmen, won the inter-city home trainer race held at the Lakeside rink, Oakland, Cal., on Thursday, 30th ult. McTige covered the distance, two miles, in 1:50, which is a record for the Pacific coast. The Garden City Wheelmen, of San Jose, carried off second honors, "Pete" Castro riding in 2:07 and William Chaboya in 2:13.



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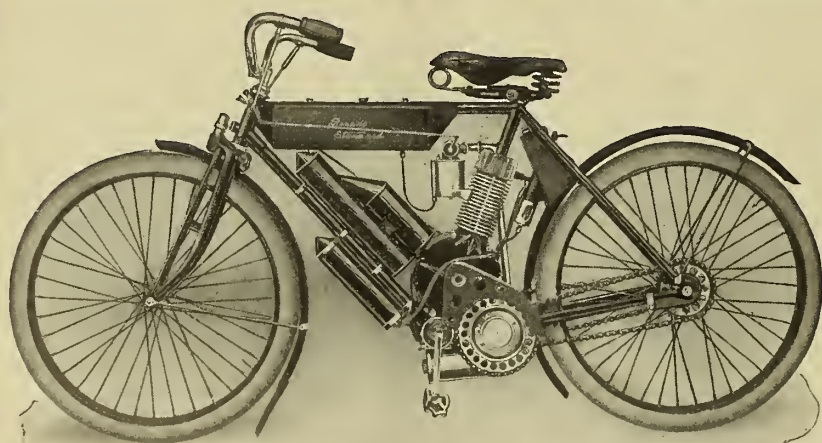
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BEATS EDISON'S WONDER BATTERY

French Invention Which Is Claimed to Dispense with Tedious Charging—How It Generates Current.

In connection with one of the foreign motor shows there recently appeared a form of ignition battery under the guise of an accumulator, which was hailed at once as a forecast of a revolution in such apparatus. It is of French origin, and is styled "L'Energique."

In general form and appearance it is not unlike an ordinary ignition accumulator, except that it is slightly smaller. The chief point of difference between it and the ordinary forms, consists in the construction of the negative element, which instead of being of the common plate form, consists of a small metallic pocket pierced with a number of holes. The vent holes in the cover instead of opening directly into the cell, admit to this pocket. Into this, which is in reality a small cage taking the place of the ordinary grid it would seem, is slipped a small cake or stick of a metallic composition, the nature of which is not revealed, but which serves the purpose of the negative element and therefore may be supposed to differ from it but little. When sold, the cell contains no electrolyte, but is perfectly dry. The "charging" process consists simply in filling the cell to the ordinary depth with diluted sulphuric acid in the usual proportion and dropping the cake of magic properties into its pocket in the negative element. At once, the voltage jumps to 2, the normal amount, and remains practically constant until the discharge is complete.

During the discharge, the composition in the negative cage is decomposed and finally disappears altogether, when instead of exhibiting a marked drop in voltage, it is claimed the current ceases abruptly. By simply removing the plug from the vent hole and inserting a new cake of "charging metal," the pressure is brought up to its normal amount once more, and the battery is ready for further service. The cakes are $1\frac{1}{2}$ -inches long and about $\frac{3}{8}$ -inch thick, so that they may be carried about readily and without inconvenience. The charging is instantly done and without the need either of skill or the otherwise necessary direct current. What is still more to the point, according to the claims, is the fact that the voltage remains practically constant up to the end of the discharge. What also is heralded as a most excellent feature of the invention is the fact that should the supply of cakes run short the cells may be charged from an ordinary direct current in the regular way.

Without complete details, it is impossible to describe the nature of the system more fully, but as it may be assumed that the wonderful bits of metal which are in-

serted in the cage are nothing more than some form of negative element which is already "formed" or prepared for the discharge. In this way the action, which in every discharging accumulator is precisely like that which takes place in the ordinary primary battery, be it wet or dry, is allowed to go on until the charge is absorbed by the electrolytic action. At that point, instead of reversing the direction of flow of the current, thus causing the replacement of the negative element upon its plate by a reversal of the electrolytic action, what amounts to the replacement of the old and run down plate with a new and fresh one takes place, and the battery is at once freshly charged. While there is nothing to show how long the cells may be used without cleaning, or what the effect upon the positive element and the electrolyte of this rather summary charging process may be, it appears that barring difficulties on this score, the invention may prove a wonderful boon to users of accumulator ignition.

One More Ladies' Motorcycle.

A new pattern of ladies' motor bicycle has just been placed upon the English market by the Advance Motor Company, of Northampton, which is claimed to embody all that is desirable for a machine of the sort, without any of the drawbacks to which the drop frame construction tends under the circumstances of the motor drive. The motor, which is of the single cylinder form, is carried on the lower tube in front of the crank hanger and in an inclined position. It is rated at 3 horsepower. The tank and carburetter are carried in front as well, the former being placed close to the head, and filling in the space between the two tubes which form that portion of the frame down to within a few inches of the combustion head of the cylinder. Magneto ignition is used, and the magneto is carried on a bracket mounted in front of the crank case. The connection between the motor and the driving wheel is by a V-belt, which is protected by means of a completely enclosing belt and dress guard combined. The front forks are trussed, and the front wheel mounting is reinforced with a pair of anti-vibration springs. Control is by means of a throttle on the carburetter operated by a twist of the wrist.

About Using Spark and Throttle.

Not all motorcyclists operate their machines to the best advantage. One of the most common mistakes made is to operate the throttle and ignition levers too rapidly. For example, if the ignition is advanced almost to the maximum suddenly, there is very likely to be a knock or a back-fire before the engine has time to pick up to the necessary speed. Similarly, if the throttle lever is opened at once from a medium position to the full, the sudden increase of suction is apt to bring such pressure as to enrich the mixture and cause a temporary lag instead of a quick "pick-up."

COMPLEXITIES IN CARBURATION

Intricacies in Intimate Intermingling of the Components of a Good Mixture—Effects of Inertia.

"When the question of carburation as generally understood in connection with motor vehicles is considered it is clearly shown that the usual methods of carburetting a liquid fuel of a volatile nature like petrol are crude and imperfect," says a well-known expert. "There is first of all the attempt to mingle a fluid which is several hundred times the relative weight of the atmosphere at sea level with air in a somewhat attenuated condition and moving with a great linear velocity. This fact that carburation means the intimate intermingling of these two substances is the first cause of the difficulty presented by the problem and the inefficiency of our present carburetting apparatus. The laws of inertia are widely different for these two, for the air being surrounded by a medium of equal density, the atmosphere, responds very readily to the invitation of the engine, on the suction stroke, to enter the cylinder. The petrol, however lags behind at first, and enters or overtakes the air, as it were, thus causing first a weakness, then an over richness of the 'mixture' or gas.

"Again, the very crude manner in which the air is admitted into the carburetter both at the ordinary air intake and also through the extra air inlets must be considered. This method causes a most irregular strata of a very ill-balanced nature in the induction pipe, owing to this mechanical mixing arrangement. No fuel is of use unless it is oxygenated or brought into close contact with the oxygen in the atmosphere. To this end an atomizing apparatus is provided in most carburetters, so that the liquid fuel may be broken up into small bodies, which may be the more easily affected by the oxygen. This is all very well where there is sufficient time to allow this to take place, but this is just what does not happen in a motor vehicle when the engine runs at a fair speed. The linear velocity of the gas in the induction pipe runs into hundreds of feet per minute, while the rate of diffusion of petrol vapor in air is only 5 mm. or $\frac{1}{2}$ in. in a second! This means that the fuel used in motors, of the type employed in motor cars, etc., is mainly wasted, because it does not get a chance of combustion, owing to the very short time it is in contact with the oxygen. Hence there is great inefficiency and waste of fuel, as well as much increased cost of running such engines. Astonishing results in the efficiency of the engine and economy of fuel have been obtained by using a mixing chamber. This had a small fan in it which acted as a heater."

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Bridgeport, Ct., December 12, 1906.

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Gentlemen:—I have just returned from a 3,000 mile bicycle trip from Bridgeport to Chicago and return, under the auspices of the Bridgeport Post. When I started out from Bridgeport Sept. 26th, my wheel was equipped with a coaster brake. This brake caused me so much trouble that I decided after six days' use to take it off and ride without a coaster brake. A bicycle manufacturer induced me to try the Morrow brake and I will say you ought to call your coaster brake the Morrow Never Fail. I have ridden under the worst of weather conditions and on one occasion was 38 hours continuous in the saddle only stopping for meals. I am confident I could not have stood the strain without a brake. During the 3,000 mile trip my brake was only taken apart once and then not because it was necessary, but to satisfy the curiosity of those present. They expressed their astonishment over the condition of the brake after such hard use. Last night here in Bridgeport some of my friends had an argument about the Morrow brake's coasting ability. We tried it and it might interest you to know that the brake at one swing kept coasting seven minutes and fifty-four seconds. The Morrow Coaster Brake has never at any time refused to respond immediately, and it is to-day in such good shape that it would stand another similar trip without any repairs at all. I think I can say I know a little about wheels and equipment and I have tried almost all the different makes of brakes. To-day my experiences assure me the Morrow is the most durable and reliable brake on the market. Every rider ought to try it and he would never use anything but the Morrow.

With most sincere wishes for the success of the splendid Morrow Brake, I remain,

Yours truly,

AXEL JOHNSON,

Reporter Bridgeport Post,

Member C. R. C. A.

FLOUTS "FAT" SPARK THEORY

Investigator Claims That a Weak One Gives Just as Much Engine Power
—Results of Experiments.

In a series of experiments by means of which he has been studying the conditions governing the ignition of the charge in the gas engine, Dr. W. Watson, an English enthusiast, has come upon the startling conclusion that the working of a motor is just as effective with a lean as with a fat spark, the result being more or less subject to the type of mechanism employed. The results of the experiments which were undertaken with a view to substantiating a theory to the same effect, have seemed to bear out the conclusion. In a lecture recently delivered before the Automobile Club of Great Britain, Dr. Watson explained his conclusions and theory somewhat as follows:

"That a 'fat' spark is better than a weak one when used to ignite the charge in a petrol motor, appears to be a commonly accepted opinion," said Dr. Watson, "while there can be no doubt that in the case of most engines the power developed is considerably greater when the voltage of the ignition battery is well up to its normal value, than when the battery has run down, although the engine continues to fire regularly." Not feeling satisfied as to the reasons for this and not being able to discover records of any previous experiments bearing on the question, he proceeded to place his own engine under test. The engine used was a double cylinder machine measuring $3\frac{1}{2}$ by 4 inches, having mechanically actuated valves placed on the same side of the cylinders. The spark plugs were placed over the inlet valves with the points well below the level of the cap. But one cylinder was used for the test, the other being run with a trembler coil and four-volt battery in the usual manner. The speeds during trials varied from 950 to 1,000 revolutions per minute. The special devices used for the test were a separate coil, for the test cylinder, together with a ten-volt battery, a separate commutator on the two-to-one shaft, an adjustable resistance in the primary circuit, and an ammeter. Both make-and-brake and wipe contact were used.

"The reason why a fat spark improves the working of a petrol engine may be either (1) the development of a greater pressure in the cylinder owing to the quicker ignition of the charge, or (2) the more regular firing produced by the timing of the spark being more uniform," continues the investigator. "Experiments using a trembler coil at once showed that when the current in the primary of the coil is reduced, the time of firing is delayed, but that on advancing the spark more than

usual, the mean pressure during the stroke can be brought back to the value obtained when the usual current is employed. As this indicated that the delay might be caused by the coil, the ordinary wipe contact was replaced by a make and break contact, while the trembler coil was replaced by a non-trembler one. As a result the delay, which, with the trembler coil took place when the current in the primary was reduced, no longer took place."

Surprising though it may seem, the results as shown on a series of indicator diagrams, varied but little according to the differences in primary current strength, and hence in the intensity of the ignition spark. From this the doctor concludes that



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"it is not the weakness or fatness of the spark—at any rate in my engine—that causes the loss of power when a trembler coil and a weak current is used."

Proceeding somewhat more into detail, he says: "The delay which occurs when a weak current is used with a trembler coil may be due to sluggishness of the trembler or to the fact that the trembler fails to act, the spark which ignites the charge being produced when the current in the primary of the coil is broken at the wipe contact.

"As the current actuating a trembler coil is gradually reduced there is at first a small lag, * * * due to lag in the trembler, and then there is a sudden great increase in the lag. This increase is due to the trembler ceasing to act, so that the spark, in place of occurring shortly after the primary circuit is completed at the commutator, does not take place till the current is interrupted at the contact. When the current is below the critical value, holding the trembler against the upper stop produces no effect on the

timing of the spark, showing that the trembler has really ceased to act. The change in current which at the critical value is required to pass from the state when the trembler acts to that in which it fails is very small, in most cases less than a tenth of an ampere."

That the size of the spark has no appreciable effect on the power developed was further shown by taking a number of indicator cards with the trembler coil, the current in the primary being adjusted first, so that the mean current was .6 amp., and the equivalent spark length in air 5.1mm., which was just sufficient to cause the trembler to act, and second, when the current was cut down to .3 amp., the equivalent spark length being in this case .3mm. Under these conditions the trembler ceased to act, but the delay in the spark thus caused was compensated for by increasing the advance of the timing gear. The mean effective pressure taken for four cards under each set of conditions was as nearly the same as was possible to measure with the apparatus in use. The fact that the motor speed remained the same also emphasized the point, and proved the power to be unaltered.

"From the results of the above measurements, it would appear that the trembler, although it undoubtedly is an advantage when starting, is apt to introduce very considerable variations in the point of the stroke at which the charge is fired," concludes the author. "Hence on this account a plain coil with a make and break is to be preferred, particularly in the case of multi-cylinder engines having separate coils for each cylinder. The ill effects of the trembler will also be felt when a single coil with a high tension distributor is used, unless care is taken to keep the electro-motive force of the battery well above the value required to give the critical current below which the trembler ceases to act. There is one disadvantage in the make and break, besides that due to the loss of power of starting on the switch, namely, that with some forms, unless the adjustment is just right, the blade may act as a trembler, giving a spark before the cam on the engine shaft finally breaks the circuit, so that pre-ignition is produced.

* * *

"Since the power developed is not improved per se by the use of a fat spark, there are many advantages in using a coil which only gives a comparatively small spark, so long as the working of the coil is regular for such a coil can be designed so that it only consumes a small current. The advantages of a small current are that, in addition to the economy in current a point of importance where facilities for charging accumulators are not at hand, the wear on the points where the current is interrupted, due to sparking, can be reduced to a vanishing point. Thus with a trembler coil the trembler, or with a plain coil the points of the make and break, need

seldom be touched. I feel confident that by suitably designing the coil and the commutator absolutely regular firing can be produced when the mean current does not exceed a tenth of an ampere."

It is to be supposed that the basis upon which the conclusions may be said to stand is that the minimum spark to which he refers as being just sufficient to ignite the charge in the combustion space, any excess of that amount cannot produce any appreciable effect. This is perfectly natural to suppose. That it follows by the same token, however, that any current in excess of what may thus be termed the minimum sparking current can never be of value in the service of the motor, is by no means a

foregone conclusion. The experiments referred to were conducted with mixtures of known value and under conditions which were perfectly well understood, whereas the average user is by no means certain at all times whether or not he is running his motor with a rich or lean mixture, and whether the commutator and coil are working to their very best ability. Hence although it may be perfectly true according to these results, that any current in excess of this so-called minimum firing value is, practically speaking, current wasted, there are times when it may be of value because of impaired working of the ignition apparatus or because of variations in the mixture which cannot be taken care

of by altering the time of ignition, so that such an excess may be regarded as a sort of "spark insurance," and therefore as of value. While the experiments are by no means conclusive, they are highly interesting, and equally so to the motorcyclist as to the engineer or motorist, and particularly so to the former, as they emphasize the value of the non-trembler coil which is almost universally employed. All things considered, therefore, it may be considered that the results are by no means final, but that they may be taken as opening the door to a more intimate investigation of one of the two most vital phases of gas engine action, about which little is known.



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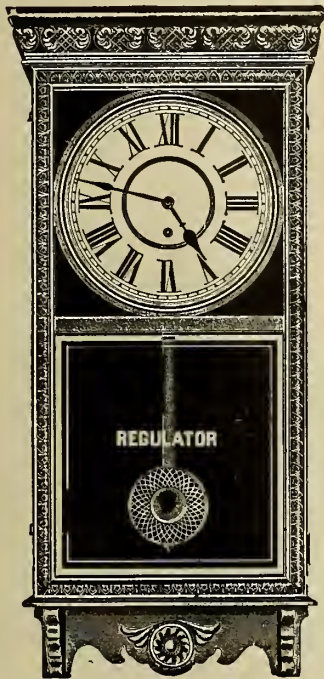
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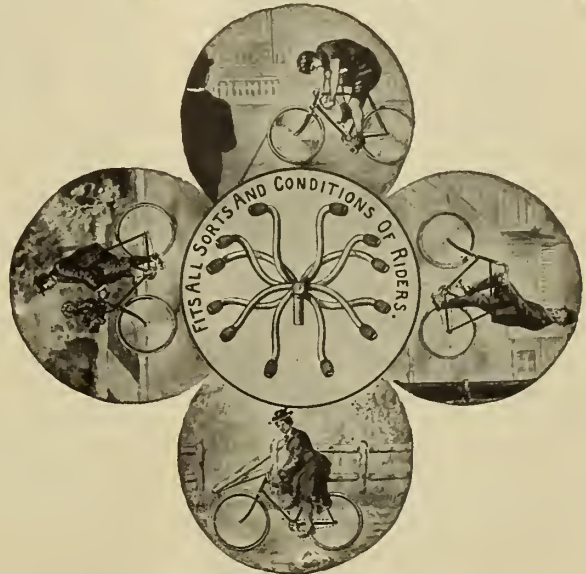
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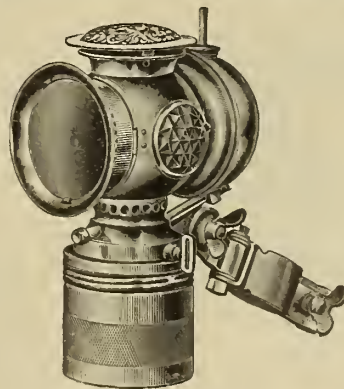
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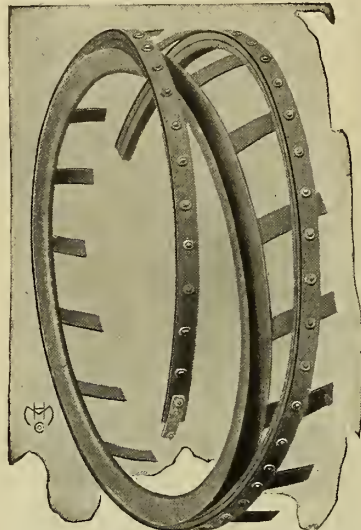
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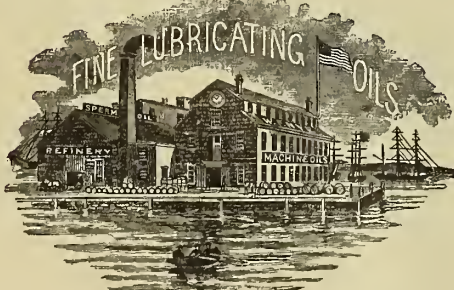
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About the Improvement of Roads.

What it terms the "greatest good roads meeting ever held," is in progress at Pittsburgh, Pa., this week, it being the fourth annual convention of the American Road-makers' Association. There is no questioning its greatness for there are present over 2,500 delegates, representing thirty-eight states, in addition to many prominent persons from all parts of the country who are interested in the advancement of good roads, and are working for practical measures to establish them.

One of the most interesting papers read was that read by State Road Commissioner E. C. Hutchinson, of New Jersey, who has been active in the movement.

Mr. Hutchinson said that when the first appropriation of \$20,000 was made it met with much opposition, and it was difficult to persuade the counties to avail themselves of its provisions. Despite this early opposition, there have been 1,151 miles of road improved under the state aid law, at a cost of \$6,655,939. To show the change in public opinion, Mr. Hutchinson remarked that when he was elected to the legislature in 1896 a man who declared himself in favor of good roads would be defeated. To-day the reverse is true. After detailing the workings of the New Jersey law, Commissioner Hutchinson said:

"Any state passing laws for improved roads should be particular that this important question of repair is guarded, so that the state can insist upon the roads being kept in good condition, especially providing that no county shall receive assistance from the state unless it takes good and proper care of its roads. As to the cost of repairs, the wider the road and the better the shoulders the less will have to be spent upon it. We have had quite a demand for narrow roads, but our experience teaches us that it is a mistake to build them. The argument is advanced that a community is able to build a great number of miles for the same amount of money if it builds narrow roads instead of wide ones. It is better to build less and build good; then the repair account will be smaller, and, as this is an annual charge, the necessity of making it as small as possible is readily appreciated.

"State aid for road improvement has done more for our state than any law ever placed upon the statute books. It has increased the value of our farms and has added not only to the pleasure and comfort of our farmers, but to that of the city men who have bought farms and built large country mansions along the line of our improved roads, thus increasing the ratables millions of dollars. For example, I know of one road that was improved about four years ago, on which the increase of ratables has been more than \$4,000,000. Farms on that road that were about to be abandoned have brought high prices since the improvement. Our only trouble now is that our appropriation of \$250,000 is not sufficient."

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—The chance but truthful remark of one of the wise men of the cycle trade.

Wherever good bicycles are featured there you will find Persons saddles. Although they lend style, comfort and quality to even a cheap bicycle they cost so much more than "the other kind" that they are not in the category of cheap equipment.

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WORCESTER, MASS.

THE BICYCLING WORLD and MOTORCYCLE REVIEW

FOUNDED 1877

Volume LIV.

New York, U. S. A., Saturday, March 23. 1907.

No. 26

MICHELIN GETS AMERICAN PLANT

Famous French Tire Maker Acquires International Factory at Milltown—Forms a \$3,000,000 Company.

Michelin tires of American manufacture will be on the market in season for the 1908 demand. M. Edouard Michelin himself has been in this country for a month or more with that end in view, and this week he completed the necessary arrangements, which took the form of the incorporation, under New Jersey laws, of the Michelin Tire Co., capitalized at \$3,000,000, and the acquirement of a going factory.

The plant which has been secured, is that of the International A. & V. Tire Co., at Milltown, N. J., which has been producing a not inconsiderable volume of bicycle tires for the jobbing trade. The factory will be operated under its present name and auspices until September 1st, when the Michelin Tire Co. will take possession. In the articles of incorporation, J. C. Matlack, general manager of the International concern, is named as Michelin's "agent in charge," which may or may not imply that he will remain with the new owners when they take over the Milltown property.

Funke Forced to the Wall.

A. H. Funke, 83 Chambers street, New York, who as an importer and jobber handled several cycle specialties in connection with guns and automobile supplies, this week filed a petition in bankruptcy. His liabilities are \$102,338 and assets \$51,700, of which the stock is estimated at \$42,000.

Among the creditors are the Metropolitan Bank, \$21,000; Marenard & Co., Paris, \$19,337; Hans Tauscher, \$16,432; Robert Van Cleff, \$5,000; Miss Julie Funke, \$9,940, and Fred Funke, \$4,324.

Since 1902 Mr. Funke has borrowed \$13,293 from life insurance companies on policies which were payable to his wife. Mr. Funke is a son of Herman Funke, who

was a partner in the firm of Herman Boker & Co. from 1850 until his death, in 1890. Albert H. Funke became a partner in that firm in 1891, but in 1899 he withdrew and began business in his own name.

German Bicycles Bothering the Britons.

As "Made in Germany" is not stamped on all of the German bicycles now being sold in Great Britain, a delegation waited on the government authorities one day this month to urge the more rigid enforcement of the "Merchandise Marks Act," which requires the branding of foreign products. The delegation maintained that the German wares are being "openly sold as of English manufacture to the detriment alike of honest traders and the public generally." The government officials, however, offered rather cold comfort. They stated that when they had a good case worked up, prosecution would follow.

Reorganizing a 'Frisco Firm.

Baker & Hamilton, the big San Francisco jobbing firm, are undergoing an internal reorganization. They have filed a petition praying for permission to change their name to the Baker & Hamilton Co., the purpose being, it is stated, to "transfer the business to a new company to be known as Baker & Hamilton, which is to be organized by the directors of the old company." The new corporation, it is explained, will simply be a holding company for the stockholders of Baker & Hamilton.

Goes the Limit in Guarantees.

In Great Britain, where guarantees long ago reached the amusing stage, the Rover Cycle Co., one of the seasoned manufacturers, has just "gone the limit" and made the fellows with three, four and five years' guarantees look like six nickels. The Rover's new warranty lasts "forever and ever; amen."

The Retail Record.

Davenport, Iowa.—John Vollertson opened new store on Brady street.

VOLUME GOES UP BUT VALUE DROPS

Peculiar Feature of the British Export Trade—Reverse Conditions Prevail in Respect to Imports.

In the matter of Great Britain's cycle exports, February more than maintained the strength which marked the opening month of the year. During the short month there were exported 6,864 complete bicycles, valued at £34,555, and parts to the value of £75,624, a total of £110,179. For February, 1906, the record was 5,048 bicycles, value £28,918, and parts worth £73,421. For the first two months of this year the aggregate value of the exports is £219,190 as against £206,534 during the corresponding period of 1906. In addition 94 motorcycles, value £10,007, were exported during January-February, as against 128, value £7,601, during the first two months of last year.

While the British exportation of bicycles is maintaining wonderful strength, the average values indicates that their quality or worth has as steadily decreased. For the first two months of 1906, the average worked out at £6 12s. per bicycle, while for the corresponding period of this year, the average dropped to £4 19s. On the other hand, while the number of complete bicycles imported has not been large, their quality has ruled much higher, making it appear that Great Britain is receiving better than it gives. The average value of the machines imported in 1902 was £5 16s. for the year; in 1903 it was £6 2s.; in 1904, £7 15s.; in 1905, £5 16s. 6d.; in 1906, £6 2s. 6d.; while for the first two months of this year, the average is £7 18s. 6d.

The Stamford Motorcycle Co., has been formed in the Connecticut city of that name, to handle the R-S. It is composed of H. C. Worden, Robert Caldwell and Norman C. Wilcox.

CONCERNING CARE OF THE BELT

Small Attentions that Afford Large Benefits—Choice of Fasteners a Factor in Durability.

Of the details of the motor bicycle there is none more important than the belt, for, after all, even if the engine is in the very pink of condition, of what avail is it if the transmission medium is lacking in efficiency? says a foreign expert. With a well-made machine fitted with a good engine, adjustments, etc., are but rarely called for; but if satisfactory results are desired, the belt, as the transmitting medium whereby the engine power is converted into useful work, deserves quite as much attention as the engine.

Belt troubles, naturally, are not of so serious a character as carburetter or ignition troubles, but they can be quite as annoying on the road. Formerly, when the twisted variety of belt and the V pattern of insufficient section were in common use, belt troubles were many and serious, but this detail, like others, has been much improved, and, given fair attention, the modern type of V belt, specially designed for flexibility, of ample section, and running on pulleys of the correct angle, is both efficient and reliable. However good a belt may be, when first put into commission it is bound to stretch to a certain extent, but this stretch the practical rider will take up before use by suspending the belt in a suitable position with a heavy weight attached, or, if this is not possible, the belt may be put into position on the machine, a piece of cord tied around the center, and the two sides of the belt brought together by inserting a stick in the string and twisting it so as to bring sufficient tension on the belt to remove the major portion of its initial stretch in, say, a couple of days.

As regards shortening the belt, a belt punch should always be used, and on no account a gimlet, as this only strains the plies of the leather. For this reason a substantial fastener should always be chosen, as there will be sufficient metal to allow the screws to be tightened up hard without destroying the threads. Once the belt has been taken into use, it is just as well to slip it off the pulleys when the machine is standing for a few days. After all rides the belt is none the worse for a wipe down to remove road dust and grit.

At regular intervals a cleaning with gasoline is advisable, although this treatment is not suitable for all varieties of belt, as it destroys cement between the layers. If any shiny black patches are to be seen on the belt sides they should be soaped off, and attention given to the tension, as they are a sign of slipping. The belt should then be well soaked in castor oil and hung up for a night, the surplus oil being removed before replacing on machine. With

such attention a belt that is suitable for its work will, in the first place, give every satisfaction, and prove a perfectly efficient means of transmission.

The Passing of "Billy" Atwell.

Although it escaped mention at the time, early this month there passed into the other world, a man who played a great big part in the history of cycling in America. He was William S. Atwell, of Boston, Mass., who it might be said practically founded the cycle industry in this country. Certain it is that he personally built the first bicycle. This was in the year 1877. Atwell built the machine for Col. Albert A. Pope.

In the summer of that year Col. Pope had been visited by John Harrington, an



WILLIAM S. ATWELL

English manufacturer of bicycles or bicycle parts. He was the Colonel's guest at Newton, Mass. Cycling was then enjoying a considerable vogue abroad, but up to that time not more than three bicycles had been brought to these shores. Harrington undoubtedly enthused Col. Pope and as a direct result, he commissioned Atwell to build him a bicycle, and Atwell accomplished the work in a Boston shop. It was a very crude creation, of course, but it was a bicycle—the first one—and its wheels revolved and it was rideable. It is a matter of history that it was an expensive one, too; it cost \$313.

From that time to the day of his death, Atwell remained actively interested in bicycles. A generation ago he connected himself with the old sporting goods firm of William Reid & Sons, Boston, and he was still engaged with them when he died. They first imported the Royal Mail, and later built the New Mail, and always Atwell was the head of their bicycle department, which during late years was not large or important.

"Billy" Atwell was widely known, was long a figure in L. A. W. affairs, or wherever cyclists congregated, and always was he a merry soul and a kindred spirit. His taking off was sudden. He dropped dead,

WOULDN'T SELL THE MOTORCYCLE

It was Dirt Cheap but the Long Headed Dealer Knew How to Safeguard His Business.

It is not necessary to mention the dealer's name, although his species is rare. Neither is it necessary to name the town, although it is not a very big dot on the map. The story is true, nevertheless, and if there were a few more like him, not only would injury to their own interests be prevented, but the dealers would be 1 out for the welfare of motorcyclists ally. Upon his floor the dealer had motor bicycles of various ages and conditions of servitude, among them being a relic of by-gone times, priced at a figure which was most alluring. Came to the store one day a man who looked over the stock and finally offered to purchase the monument.

"Not on your life," said the dealer. "If you lived a hundred miles away from here, you could have it a little before you asked for it, and welcome, too. But so long as you live in this town I won't sell you that machine for any kind of money, simply because it would amount to cutting my own throat."

"Now, I'll sell you that machine over there for \$75 if you want it, and I know that you will be able to ride it sometimes and to get some little satisfaction out of it. But if I let you have the other one, the result would be that you would be knocking me inside and out, everybody in town would hear about it, motorcycles would be given a black eye, and it would be nothing less than setting a trap for my own ruin. No, sir, not that machine for you."

Motorcycles Free, Other Cycles Taxed.

The Bahamas is one of the British colonies that accords motorcycles better treatment than the leg driven machines. The former are admitted free of duty, while the latter are subject to a tariff of 5 shillings; similarly motorcycle parts escape taxation while cycle parts must pay 20 per cent, ad valorem.

Portugal Sets a Stiff Duty.

The Portuguese government has fixed the import duty on motorcycles at 50 milreis (\$54) each. The exact specification to which this duty applies is "motor bicycles or tricycles, without pedals, or with pedals which do not influence the movement of the same."

Randall Failed to Rally from Operation.

Fred E. Randall, who was about the first of the Boston dealers to take up motorcycles, died in a private hospital in that city on Thursday of last week. Death followed an operation.

KINKS IN THE CONTACT BREAKER

Conditions Necessary for Satisfactory Working—A Vital Mechanism in Motorcycle Ignition.

When considered as to the make-up of any of its elements, the ignition system of the motorcycle appears to be so simple that there is absolutely no excuse for its going awry. Yet only a couple of hours active experience is necessary in most cases to convince the beginner that however simple it may be in construction and arrangement it is capable of producing some of the most mystifying ailments of which the machine is heir. Strangely enough, some of the most puzzling of these are so very elementary in their nature as to escape detection from that very fact. And of all such difficulties, safe to say the most troublesome as well as perhaps the most frequently recurrent are such as overtake the make and break contact mechanism in the primary circuit. A thorough comprehension of the requirements of this device as well as an understanding of its construction is absolutely necessary for the rider who hopes to get on peaceably with his mount, and though he may be well acquainted with his "A, B, C's," an occasional "review" may prove useful in helping him either to ferret out or to prevent some bothersome little difficulty which otherwise might stall him for some time.

Considered in its elements, the contact maker, or breaker box, as it is variously called, the condition of the three parts which are most likely to go astray, barring of course, the terminal connection of the battery wire, which it is to be supposed may be kept in shape at all times without special vigilance, may best be studied independently. That is to say, the requirements of the contact points, the vibrator spring and the adjusting screws are simple enough when considered by themselves, however confusing they appear to the beginner and also to many of his more experienced brethren, when taken as parts of the device as a whole.

For the contacts, it is essential in the first place that they be clean and free from pitting or the corrosive effects which are likely to occur where impure metal has been used. The bearing surfaces should be clean and bright at all times, and should be so shaped that they strike fairly and with the greatest possible amount of metal in contact, so that the resistance to the passage of the current shall be at its minimum, as well as to prevent arcing when the rupture occurs. More than this the points should be firmly riveted into their seats so that they will not rock or clatter, and they should be long enough so that no portion of the contact blade shall make contact and create a short circuit at any

time. Of course unless the proper grade of platinum has been used in their construction, they will not last properly, but will either burn or become misshapen through the repeated impacts when the motor is running.

With the vibrating springs, on the other hand, it is essential that they be of good and even spring temper, free from kinks, so that they present an even resistance to the deflecting action of the cam throughout their entire length, bending uniformly, and that they be firmly fixed in place. It is absolutely essential as well that these springs be strong enough so that they cannot act as vibrators under the influence of the primary current itself, even though the voltage should be increased by a considerable amount. This effect, which sometimes is found, serves to transform the system into a vibrator instead of a non-vibrator arrangement, and besides preventing the administration of the spark at the proper instant, it instead frequently causing preignition, calls upon the windings of the coils for a class of duty they never were meant to take up. Of course the spring should be perfectly free to respond to the action of the cam, and with as little resistance as is possible without danger of free vibration. The unpleasant results to be expected in case the spring is allowed to touch any insulated portion of the circuit, or in case the blade scrapes against the sides of the breaker box, need not be mentioned specifically.

As for the contact or terminal screws, but more especially the adjusting mechanism, it is necessary that they be a good fit in the threads so that the adjustments shall not be difficult to set, nor once set, to maintain, and that they be provided with some sort of locking devices. In the case of the terminal screws, this is not absolutely necessary, though where very heavy use is to be given the machine, it is desirable. With the adjusting screws proper, however, it is absolutely essential. These may be either in the form of lock nuts or set screws. In either case they should be free to work, and capable of retaining their setting. Also it is necessary that the contact metal should be firmly riveted or soldered in place and properly shaped as to its contact face, as already suggested, while it should be large enough so that the metal of the screw does not bear against the contact spring under the influence of the cam.

In adjusting the parts, care should be taken first of all, to secure the proper clearance between the points during the period of open circuit, and contradictory as it may seem, this precaution is fully as essential as the more obvious one of securing perfect contact during the remaining interval of the complete cycle. The absolute amount of clearance required varies with the device in use, but is seldom if ever less than 1-32-inch, and frequently is as much as 1-16-inch. The adjustment of the points should be such that they make

positive contact each time they are brought together, but with no greater impact than is absolutely required, as the series of smart hammer-blows which otherwise would result would tend to upset the metal in the points and spoil the working faces. The less pressure brought to bear on the spring in making contact, the better, for obvious reasons, but at the same time, enough force to insure a positive stroke of the moving upon the stationary point, and at the same time sufficient to force aside any particles of oil or dirt which may have accumulated, is required. In hitting the delicate half-way point between the good and the bad, lies the art of proper adjustment.

Generally speaking, the cam itself will be found to run true to the contact blade, but occasionally it will be found to be a little "out," when of course, the points will be apt to strike off-centre and the blade to be subjected to more or less twisting action. The range of adjustment for advancing and retarding the time of the ignition should always be as wide as possible and perfectly free so that there shall be no danger of the lever or grip sticking when in use, and the fastenings of all the connecting mechanism should be secure so that there shall be no danger of the motor "breaking loose" under strong provocation. The parts enclosed in the breaker box should be kept clean and free of grease at all times, and especially is it necessary that all metallic dust such as is formed by the abrasion of surfaces which are in contact, be kept off the parts. Such dust forms the best possible medium for a short circuit, and moreover, once permitted to accumulate is hard to discover with the eye, and frequently enough proves the basic cause of some very puzzling difficulty.

To Prevent Oil from Sticking.

One of those little tricks which save the rider some annoyance when handling heavy lubricating oil such as is used for motorcycle engines, is to rinse out the measure from which the oil is to be poured with a little gasoline, pouring it out before putting in the oil, but leaving the sides of the tin thoroughly wet. As a result, it will be found that the oil will not stick to the sides as it will do otherwise, but that it will flow freely, leaving the tin clean, and not dripping at the last as otherwise is apt to be the case.

Batteries on Two-Cylinder Machines.

With the increased use of two-cylinder motorcycles, the man who previously was familiar with a "single" will have some new things to learn. One of his earliest experiences will be the discovery that the "double" fairly "eats up" batteries and early in his career with his first "double" it is likely to suffer many jerks and skips due to the fact, but which he is likely to attribute to other sources.

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The treatment almost certainly will cause you to "pick up" wonderfully in "no time at all." Nationals are not like other bicycles.

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Bay City, Mich., U. S. A.

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Members of the trade are invited and are at all times welcome to make our office their headquarters while in New York; our facilities and information will be at their command.

To Facilitate Matters Our Patrons Should Address us at P. O. Box 649.

NEW YORK, MARCH 23, 1907.

How Dealers May Help Themselves.

If there were more dealers like John R. Vosburgh, of Johnstown, N. Y., the health and prosperity of their respective businesses would be considerably improved. When the summaries of the recent census report were sent out and published by the daily papers, the point which seemed to impress the headline writers and the editorial commentators was that the bicycle business was on its last legs, declining in volume each year according to the census figures, and giving way to the automobile industry. The newspapers in Vosburg's town handled the report in the same superficial way, the effect on the readers being to suggest that the bicycle was on the downward chute to the "has-been" tank.

Vosburgh, however, did not sit down and let it put another wrinkle in his forehead and a shade of gloom on his front windows. He immediately took up the matter with the local papers, showing the injustice of their view, as well as its fallacy. In a letter he pointed out their error in taking the figures of the few years preceding 1905, as a basis of comment on present conditions. He explained that the census report, while just issued by the government,

was far behind the times as an indication of the status of the bicycle industry now, since the report covers about the very worst years and has no later figures than those of 1905, and therefore does not reflect the swelling tide of returning prosperity and volume of sales that has set in.

Willing to be set right and anxious to make amend for the wrong impression they had inadvertently created, the papers gave Vosburgh's letter a full publication in a prominent position. As is evident, the effect of this was to correct the local public's view as to bicycling's popularity, and incidentally to give Vosburgh, as a bicycle dealer, more publicity than a thick bank roll could buy.

It is prompt action of this kind that converts setbacks into opportunities. Bicycle dealers everywhere can draw fruitful lessons from such examples, and not the least lesson to be learned is to get in touch with the editors of the local papers, and to show them all the promising phases of the return of cycling to something like its former proportions, and more particularly to "nail" the damaging items which appear periodically. Newspapers would rather be right than wrong, despite some impressions to the contrary.

The Road Racing Situation.

Even though he is not doing so in his capacity of president of the Century Road Club of America, it is rather pitiful to see a man like A. G. Armstrong, who has reached the age of mature discretion and whose eyes appear to be fairly wide apart, leading what is obviously a soreheaded movement, which can inspire no respect, and which is doomed to failure before it is started.

For several years, it has been very plain that road racing was sadly in need of a controlling hand of some sort and during that period the *Bicycling World* time and again called for some one to reach out and save one of the finest of sports from going to the bowwows. Mr. Armstrong was one of those who agreed that action of the sort was necessary and although the opportunity for him to play the part of a rescuer was wide open he did nothing. With things going from bad to worse, the N. C. A. finally and wisely stepped in and assumed control. That decision, coupled with the professionalization of some of his friends, seemed the spur which Armstrong and some of his more immediate following required to urge them to action. But the

door of opportunity has been closed to them. What would have been an act of wisdom a few months ago now becomes an act of folly, tinged with spitefulness. It can serve no useful purposes. It can serve only to make road racing ridiculous and lead only to the development of a crop of "outlaws."

The N. C. A. is in control and because of its affiliations with the other national sports-governing bodies its control will be generally recognized and respected. The men who run counter to it will merely make trouble for themselves. The door of all other sports will be closed to them and when they awaken—as they surely will—to the fact that no sorehead movement of the sort ever succeeded, they will have only themselves to blame for the unenviable position in which they will find themselves.

The methods by which the N. C. A. purposes controlling road racing are so fair that they cannot but commend themselves to all good sportsmen who do not believe in one code of ethics for the track, and another code for the road. Sport is sport wherever it may occur, and only clean sport is worth while. Road racing has been so unclean that it needs punting, and the man who is free from prejudice and grievances knows only too well that it can be purged and kept clean only by a national organization possessed of those alliances that make its control mean something.

As the N. C. A. registration fee is but the nominal charge of 25 cents, the man who is ready to stand up and be counted and who does not fear being "found out," can have no cause for complaint on the score of expense; and as no charge will be made for sanctions, and all bona fide clubs are free to elect representatives to the N. C. A. road racing committee, it will require the most charitable eyes to view the club that holds aloof. It has no tenable ground for doing so and a dog in the manger attitude will serve no purpose and excite no respect.

Making Game of Guarantees.

Reaching a climax of apparently reckless self-confidence and generosity, one British bicycle manufacturer has at last reached the logical limit of British long term guarantee absurdity by guaranteeing his product forever and ever, through eternity, past infinity, and thereafter. Nothing could more completely show the hollowness and general empty character of the

British bicycle guarantees, which on their face are seemingly so liberal, than this masterly stroke, which, consciously or unconsciously, crystallizes the whole joke of the British system.

British bicycles are not guaranteed in their entirety by their makers. If a whole bicycle should fall apart into a little pile of dust all at once, like the "deacon's one-horse shay," the maker might feel a slight responsibility in the matter of the frame tubing and offer to replace that much, but as for pedals, chains, rims, tires, saddles, and handle bars, these, unfortunately for the rider, are all likely to be under separate guarantees, each part guaranteed for a different period of time. The flamboyant advertising of the British maker that his machines are guaranteed for some long or endless period of time, is calculated to deceive the unwary, and seems a selling trick almost unworthy the industry.

Fortunately the American trade can afford to smile at the situation that exists abroad. Any variation from their obvious meaning of the American warranty always has been in favor of the rider. They promise little and give much, as the practice of American makers has been to make good such parts as break or go wrong through defects in material or manufacture, without regard to whether the guarantee period has expired or not. The permanent after effect on the trade of this policy is so much more beneficial than the empty deception of pretentious and wordy guarantees that in reality have nothing to them, that it is scarcely likely that the eagerness of the sales department will create an empty "hurrah" over long-term guarantee.

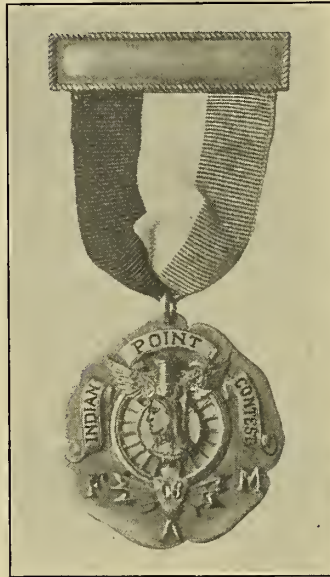
That it takes a good deal of material very carefully worked up to form a bicycle, is well enough known, but that every time you see 20 bicycles, you see almost 300 feet of tire tubing and no less than a quarter of a mile of spoke wire, is something not so apparent. Twenty-five pounds of bicycle is a mechanical achievement of which the world never should cease to be proud.

He is a wise man who having a bicycle he would have overhauled, seeks out his local repairman without another day's delay. There is at least one time of the year when the repairman is busy and that time is practically here. It is now a case of not only first come, first served but of first come, best served and served in time.

HOLDEN GETS THE GOODWIN MEDAL

Demonstrating that Seconds and Thirds Count in a Year's Contest—Goodwin Now Offers Open Trophy.

George N. Holden, of Springfield, Mass., has been awarded the Goodwin medal; and probably none was more surprised than Holden himself. While he figured as a survivor of the memorable F. A. M. endurance contest from New York to Rochester, he did not cut much of a figure as a racing man. His score which entitled him to the medal was 16 points, and most of them were earned on the second day of the F. A. M. meet at Rochester, when Hol-



den made a post entry and gathered a bunch of second and third prizes. His only first place was scored in the hill climbing contest on that occasion. Holden's "runner-up" for the medal was also a surprise—Charles W. Van Sickle, of Chicago, who earned 12 points. The other leaders in order were B. A. Swenson, Providence, R. I., 10 points; E. L. Buffington, Providence, 8 points, and R. Gould, Los Angeles, Cal., 8 points.

The medal was offered early last year by E. W. Goodwin, of Brooklyn, N. Y., an Indian enthusiast, who is wholly without trade affiliations, and he was so modest about it that he styled it the "Indian Point Medal." The conditions he laid down were that the trophy be awarded to the rider of an Indian, not connected with the Hendee factory, who, under F. A. M. rules, sanction and registration, earned the greatest number of points during the year on a basis of 3 points for a first place, 2 for a second, and 1 for a third, open events only to count; Goodman specially provided, however, that all survivors of the national endurance contest be credited also with a first place. He left the award to the F. A. M. officials and the final standing of the men was

made up from his records by Chairman Roland Douglas, of the F. A. M. competition committee. All of the men named also won places in other events, but they were closed contests, usually local or State championships. That the medal, which is of gold, is worth having, the accompanying illustration shows.

Although he admits that he was rather disappointed by the display of interest last year, Mr. Goodwin has authorized the announcement that he will give another medal for the best performance during 1907. It will be styled the "Goodwin medal," and instead of the competition being restricted to riders of Indian motorcycles, it will be open to all. Otherwise the same conditions will apply.

Motorcyclists Safe in Illinois Bill.

Motorcyclists have escaped the fees and tags with which they were threatened in Illinois; but it was a close call. The automobile bill, in which they originally were included, had been reported by the Senate committee and it required some delicate manoueuvering to secure the amendments necessary to attain the motorcyclists' ends. While they escape the fees and tags, they are, however, subject to the bill's penalties, one of which is a fine of \$200 for engaging in a road race. The bill has been passed by the Senate and it is believed will be favorably acted on in the House.

The occasion gave Irving R. Hall, western vice-president of the F. A. M., an opportunity to demonstrate the value of that organization. It was due solely to F. A. M. influence and effort that the end was attained, Hall performing his part of the work splendidly and without fireworks.

The F. A. M. is likewise in proper touch in Connecticut, where eight bills affecting motorcyclists are pending and any of which, if passed, will increase the cost of motorcycling in that State. According to F. A. M. advices, the eight bills will be supplanted by a substitute measure and if motorcycles are not entirely eliminated, it is practically a certainty that they will not be compelled to bear the same fees and other burdens which will be imposed on automobiles.

Milwaukee Motorcyclists Elect Officers.

The Milwaukee Motorcycle Club has elected the following officers for the 1907 term: Dr. Thomas, president; J. T. Ball, vice-president; Arthur Davidson, secretary; Arthur Morgan, treasurer. Directors: Ralph Sporleder, Arthur Kellerman, Herbert Taylor, Dr. Thomas, and Arthur Davidson.

Baltimore to Bid for F. A. M. Meet.

Because of the destruction of the Garfield Park track, the Chicago Motorcycle Club has been compelled to waive its application for the F. A. M. national meet of 1907. Baltimore has entered the list, however, and has let it be known that its bid for the meet may be expected.

HOW THE N. C. A. WILL CONTROL

Outlines a Fair and Reasonable Plan for Government of Road Racing—No Charge for Sanctions.

Since its annual meeting last month, at which the National Cycling Association assumed control of road racing, President Adey and Chairman Kelsey, of the Board of Control, have had their heads together formulating the basis on which that sport will be governed. The result of their conferences was made public this week, and the plan adopted proves so fair and so reasonable and equitable that it cannot but meet with general approval. It is so fair and reasonable, in fact, that it will cut most of the ground from under the feet of the handful of malcontents who, without waiting for the plan of government to be announced and because of their desire to create disturbance, have succeeded in creating some little misunderstanding.

In the first place, the N. C. A. will exact no charge whatever for sanctions for road races, and in the second place, the registration fee has been placed so low—25 cents annually—that not even a Hungry Joe can utter a protest or complain of the expense involved. This registration card will be good for road racing only; but if any ambitious scorcher desires to make his appearance on the track, on payment of an additional 75 cents, it will be exchanged for the N. C. A. standard registration certificate, which is good for either track or road, and the cost of which is \$1.

Applications for sanctions must be made to the Board of Control, and will be granted when the promoting clubs have complied with the requirements of the law and obtained necessary permits of the local authorities, or when such contests may be conducted without conflict with the enforcement of the law. Century runs under club auspices will not be considered races, and clubs will be free to conduct their own closed club races without sanction or registration.

The matter of handicapping will be left optional with race promoting clubs, but when desired, an official handicapper will be designated whose services may be obtained by special agreement.

Non-confliction of dates is a situation which will be carefully looked after by the Board of Control; priority of application invariably will be the determining factor. A "rain date" always should be specified, but this date will not take precedence over a regularly scheduled event without mutual agreement between respective promoters.

The rules for competition on the road will be formulated by the Board of Control; but, of course, they cannot differ materially from those in vogue on the track. Their enforcement will be in the hands of the Board, or its officially accredited repre-

sentative. There will be, however, no rules arbitrarily adopted or enforced, as the N. C. A. plan of government provides also for the formation of a road racing committee, which will consist of one duly authorized delegate from each regularly organized cycling club. This committee will be free to suggest rules to the Board of Control, and to confer therewith on all matters concerning changes in the rules applying to road racing. Any regularly organized club of twenty members or more, holding at least one monthly meeting will be eligible to elect a delegate to this road racing committee. This is absolutely the only necessary requirement. It puts squarely up to each organization, whether N. C. A. club or otherwise, the matter of being represented or unrepresented, and without charge of any kind. No club, therefore, can claim that it is denied voice.

"We did not seek the control of road racing," said Chairman Kelsey, after making known these particulars, "it was put up to us. We were solicited by several organizations to take charge of the sport and even before doing so we went out of our way to invite an expression of official opinion from all the cycling organizations we could reach. We left it to them to say whether or no N. C. A. control was desired. As is well known, the expression of opinion was overwhelmingly in favor of our assuming control. Having assumed it, and made clear that it is our desire to act fairly to all, we propose that our control shall be real and not nominal.

"We shall insist on the registration of all riders in open events. Registration is the only system which permits any organization to keep track of racing men, and more than this it is rendered obligatory on the part of the N. C. A. by reason of its agreement with the International Cyclists Union, which requires that registration shall be universal on the part of all its members and allies. Our other allies, the Amateur Athletic Union and the Federation of American Motorcyclists, also require registration, and as they recognize our rulings and suspensions, N. C. A. control of road racing—which will become effective on May 1st next—will reach much further than may appear on the surface. We did not take action without being invited to do so, nor have we assumed an arbitrary position. There is no doubt that road racing required control, and it is our purpose to control it in the interests of clean sport and a square deal to all."

Chronic Novices Get the Axe.

The Board of Control of the National Cycling Association has a move to put a stop to the reprehensible practice of "ringing" in novice races. Five riders were this week placed under suspension for having competed in novice races after having won prizes. The men under suspension are: Otto J. Steih, Eugene Bataille, Charles Anderson, Frank Lane and George T. Jerome, all of the metropolitan district.

TAYLOR HIMSELF IS NOT SO SURE

"Coquellish" Tales of Black Crack's Engagements for Paris, Salt Lake and Australia—His Telegram.

Despite the fact that "Major" Taylor's re-entrance into the racing game is practically assured, according to Parisian track managers, such seems to be far from the case. This week such a tall tale of Taylor's prospects and future plans was brought to this country by L'Auto, whose owners are somewhat interested in the negro's gate-drawing power, that it required verification. In substance, the story stated that the Worcester crack had positively contracted to appear in Paris on the Buffalo track, that he would ride ten races, and it even gave the dates of some of them. Then it went on to say that Taylor would ride three matches in Salt Lake City, after which he would go to Australia, where he would be given \$10,000 to ride 12 races. A telegram to Taylor at Worcester, Mass., brought a quick answer, which proved that the Parisian managers are dealing in rather remarkable futures. Taylor's reply to the *Bicycling World's* inquiry says:

"Positively nothing definite regarding Paris or Salt Lake. Absolutely no truth about Australian offer so far as I know."

According to the tale published in L'Auto, over Robert Coquelle's signature—Coquelle is one of the track promoters who was interested in Taylor at the time of his suspension—Taylor is to ride five races at Paris between May 9th and June 10th, the first being the Grand Prix of Paris at Vincennes, and the next are supposed to be on Tuesday of the Ascension and Monday of the Pentecost, with the American negro opposed to the French champion, whoever he should turn out to be. After that he would meet two of the best Americans at the track of Auteuil riding his other races in the evening at Buffalo. This much of the story sounded plausible, but Coquelle's further ruminations laid out such a globe-girdling program for Taylor, that it staggered belief.

"After resting a month and returning to America," said Coquelle, "Taylor will make a new tour of the world, which he has already done three times, like the Marquis of 'Cloches de Corneville'"—whatever that may mean. "Taylor has accepted a proposition from the manager of the Salt Lake City to ride on the track of the Mormons three heats in the latter part of the month of August. His engagement there finished, he returns to Worcester, later departing from Vancouver to go to the antipodes. Taylor's Australian contract guarantees him \$10,000 for twelve races. It is good to be an American negro and to be 27 years of age. Let it go on!"

Although as shown by Taylor's telegram,

the Australian contract is a "dream" that originated in Paris, additional color is lent to the story by the advertisement of the "Sons of Peugeot Brothers." It shows that Taylor apparently has Paris in his mind. The advertisement in question contains a cable message purporting to have been sent by Taylor from Worcester on March 5th. It reads: "Returning to France. I beseech you to keep me a mount of your make."

Tigers Hire a Larger Hall.

Because of the large number of entries already received the Tiger Wheelmen of New York have found it necessary to secure a larger hall in which to hold the home trainer championship races which they have scheduled for April 13th. To obviate the necessity of changing the posters, entry blanks and so forth the committee has found a larger hall in the same building first advertised—Turn Halle, 917 Eighth

RACING CHANGES IN AUSTRALIA

Road Events Grow in Favor—Smaller Prizes but More of Them—What Killed the "Sydney Thousand."

Melbourne, Feb. 15.—It has been said that there is a slump in the racing in Australia this season, and this is only partly true. The slump is felt only in New South Wales, and as a consequence, there will be no Sydney Thousand Carnival this year.

The authorities governing the sport in that state have only themselves to blame; they attempted to do the impossible; the men had to race for an isolated big prize through several meetings, and the prizes for the other events on the programs were infinitesimal by comparison. This led to teaming and scheming and to all sorts of practices by which the riders endeavored

guarantee money forthcoming to run it this season. It must be said that the chief cause for the method of conducting the racing is want of experience, and the measuring of all competitors by the gauge with which they are most familiar. The dates allotted originally to the Sydney Thousand Meetings have been given to the Victorian League, which finds no difficulty in allotting them to its affiliated promoters. Large entries are still being received for all path events here; there has been only one exception—the Austral meeting—this being due to the fact that the secretary thought he could cut down the money and introduce an extraneous attraction and do as well. It proved a bad change, for which there have been regrets. There are no very large prizes to be raced for now, but this will be beneficial to sport as a whole, and the practice is now to more equitably apportion the money over the places. For instance, the A. N. A.



SPECTACLE OF THE EVOLUTION OF THE RACING MAN

avenue. The unexpected "deluge" of entries has also necessitated the doubling of the number of prizes. In addition to the one mile race for the championship of New York and New Jersey, the committee has arranged two professional match races and two record trials by local professional "fliers."

To Race in Mexico City.

Mexico's bull ring and toreador soon will be supplanted by the banked track and the racing cyclist, if Emile Agraz, of six day fame, has his way. From now on the national Mexican sport may be expected to be cycle racing. Agraz has had a saucer track built in the City of Mexico and he expects to run race meets there at frequent intervals. Agraz left San Jose, Cal., last week, en route to Mexico, and accompanying him were P. Castro, W. Cheboya, Frank Hitchcock, Raymond Shattuck, John Berryessa, Robert Diefenbacher and Hal McCormick, all California amateurs.

Electric's Racing Spark Rekindled.

The Electric Wheelmen of Reading, Pa., are considering the proposition of holding a race meet in the spring, as there is very strong sentiment for it. Some years ago Reading was a "bang-up" town for race meets and the Electric Wheelmen promoted several successful affairs, but of late years the club has not interested itself in racing matters. The universal renewal of interest in cycling has fired the Reading pedal-pushers to get back to their stride.

to annex the big money in the Sydney Thousand wheel race—or, at least, some of it—for you will understand that if the promotor will not cut up the prize money in a proportionate manner the men will, aye, must, for how are they going to exist without the needful? We all know very well that no man can win a big race altogether on his own; the very methods of present-day racing preclude this; no man can pace and win. Hence he must save here and there with this or that rider to help, perhaps in a mutual way; but as often as not a man who is considered to have a good chance by reason of a liberal handicap obtained probably by previous indifferent performances in view of the several rich prizes for handicaps in these States, is made a favorite, and he promises to pay so much to this and that rider to help him or hinder others in the race.

The peculiar, and I may say humorous, part of it is that while deliberately giving them cause for so doing—putting the money all in one place—the riders have been threatened with fines and disqualification if they did not race right out from their marks, and even if one happened to do this so well as to run himself out, he was called over the coals for throwing his chance away. In fact, the riders of this state found New South Wales a good place to keep away from, for they did not know when or for what reason they might be called up and possibly sent out. The last Sydney Thousand was not too well patronized, and, as a result, there is no

meeting had for the best money as follows: 1st, \$200; 2d, \$100; 3d, \$50; and 4th, \$25.

However well the path racing may be keeping together here, the sport on the road is growing larger and more important than ever. Just as this mail leaves there is commencing a big road racing carnival in Gippsland, one of the principal provinces in this State, where no less than seven events, ranging from 12 to 52 miles will be decided within a fortnight, and for which—for each event—upwards of 260 entries have been received. This total has only been beaten once—in last year's Dunlop road race—Warrnambool to Melbourne, 165 miles, when 302 names were received. The method of running these road races is that by starting from a common center—the town of Sale—the routes of the contests radiate in several directions, and after racing to a given town on the one day the competitors are utilized and induced to race at a track meeting on the following day in the town to which they have traveled, the road event being a sort of an advertisement for the meeting. Two of the road contests have as first prize \$500 each, three others with \$100 each for first money. Another big road race in the not very distant future is one of 100 miles now being arranged by the members of the cycle trade in Melbourne. The first prize is to be \$250, while there will be a lot of others. The trade is doing this because it has found out that road racing is more conducive to trade than are track race meets.

PARIS RACES DRAWING WELL

Walthour Mows Down Records in a Fast Hour—Americans Gathering in Force—Results in Competitions.

Paris, March 11.—Although the opening at the summer tracks is but a few weeks removed, interest in the indoor meets does not seem to be affected in any way. Instead it seems to increase as the fag end of the winter season approaches, which is attributed to the number of foreign cracks already here and the promise of a considerable augmentation of their number before many weeks. The Americans already here are Walthour, Butler, McFarland and Menus Bedell of the pace followers; John Bedell, Schwab and Hedspeth, traveling with the sprinters. Although Kramer and Lawson are not now expected, Taylor's re-appearance after a two-year rest will occasion great interest. Bardgett and Fogler will be here soon and Louis Mettling of Jamaica Plains, Mass., is making overtures to the tracks promoters.

Walthour made his season's debut at the Velodrome d'Hiver on the 4th and won a good victory with apparent ease, following it up yesterday with another notable win over Guignard and McFarland, and this with only a few weeks' training, so that he is figured upon for the world's championships, which will this year be run here.

Yesterday's racing at the Velodrome d'Hiver was of the usual first order; the most important event was the race between Walthour, Guignard and McFarland, which went for one hour and which proved that the blonde American is just as fast as of old, for he broke all the local records from 10 to 60 kilometres. The race started without incident with Hoffmann in front of Walthour, Amerigo up for McFarland and Peguy pulling Guignard. Walthour started to ride from the first which leads one to believe that the Atlantan realizes that to get any contracts this year he must do his very best all the time. Anyway, Walthour gained two laps on McFarland, who did not appear to be more than a mouthful to him, before the first 10 kilometres and steadily drew away from Guignard. Ten kilometres was covered in 7:51, the old record being also by Walthour in 7:54½. Soon after Walthour lapped Guignard and in a little while had gained three on his fellow compatriot. One lap did not satisfy Walthour, for he rode like a fiend, and a second time he came up to and doubled the hour recordman. We are only at the fifteenth kilometre in the meanwhile, but two laps are not sufficient for "le grand Americain." He must lap Guignard thrice. He does it in the 19th kilometre. Twenty kilometres were covered in 15:13½ (old record 15:24). McFarland

and Guignard by this time seem to have all they want and when Walthour goes by them on the outside he sticks out his tongue and "Mack" promptly tells him to "gotohell" in characteristic Californiese, but not loud enough for the stewards to hear. Such are the little pleasantries of the track. Guignard comes up to McFarland, but does not pass him. Neck and neck for eight, ten laps, they fight. C'est superb! A great battle for six kilometres, when the Frenchman finally comes out victor. It was a battle of the old men. Thirty kilometres in 22:42 (old record 22:57½). Walthour rides with a regularity that is marvelous. Lap after lap is reeled

third. The "Prix Tom Linton," a thirty-kilometre paced race, was won by Bruni, who rode a remarkably close race against Parent, finishing only one-half lap ahead. Verbist was third by five laps. Time, 23:40½. No one found any fault with the speed of the motorcycles in the match race of Amerigo against Moreau. Amerigo had a walkover in the first heat and covered the 31-10 miles in 3:27½. In the second heat he beat Moreau by 100 yards and rode the distance in 3:30½. Deschamps triumphed in the course des primes, Cornet getting second by one length. Dupre and Venden Born proved the speedy pair in the tandem race, and they trounced Benyon-Schilling and Poulain-Jacquelin in this order.

Walthour's annual debut was made at the Winter track on the 4th inst., when he defeated Louis Darragon, champion of the world, and also champion of France, in two straight heats. The first heat was at 20 kilometres, which the American won by five laps in 15:40½. The distance of the second heat was 30 kilometres, about 18½ miles, and Walthour got home again in front of his rival. Time, 23:23½.

Vanden Born finished first in the Prix Zimmerman, a 1,000-metre tandem paced race, beating the old time champion of France, Jacquelin. John Bedell rode in the first heat but was shut out by Cornet, who is usually undefeatable at this distance. Signeur, Libeaud and Deschamps finished in this order in the Course de Primes, which had thirty-four riders fighting for lap money. Labrousse won the Prix D'Encouragement.



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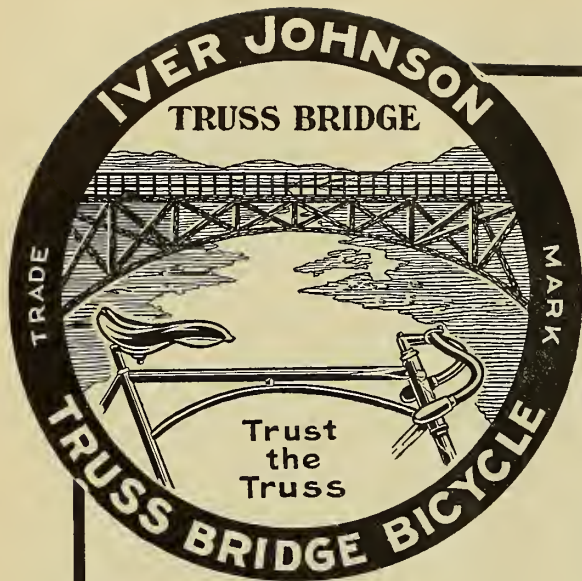
off in 15 seconds, without a fifth of a second variance. One could almost write down the time in advance. McFarland damages his machine and is obliged to change. This put him virtually out of the running and he lost 15 laps in all. Forty kilometres in 30:16 (old record 30:36¾). Guignard is now seven laps trailing. Fifty kilometres in 37:49 (old record 38:16¾). Guignard is now nine laps to the bad. The spectators begin to leave as this is the last race of the day and the positions are generally conceded. The records continue to fall. Sixty kilometres in 45:26 (old record 45:55¾). Guignard is 11 laps behind. Seventy kilometres in 53:14. The finish now approaches. Walthour rides a bit slower and Guignard increases his pace, while poor McFarland looks as though he had been punished, long old man. The pistol cracks and the race is over. Walthour has covered 78.701 kilometres, Guignard is 16 laps behind, with 73.400 kilometres, and McFarland is lost in the rear 31 laps; he has covered 68.400 kilos.

At the same meet Benyon won the 1,000 metres sprint, but was disqualified, and the money was given to Heller, with Martin second and Jacquelin, who sat up,

The first Municipal meeting of the season was held at the Velodrome d'Hiver on Thursday, 7th inst., the principal event being the running of the trial heats of the Conseil Municipal, which will be decided on March 17th. Dupre won the first heat and Schwab beat Benyon in the second. John Bedell and Schilling had a set-to to qualify in the third heat and the American reached the tape first. The next heat went to Vanden Born and Rettich lording it over Jacquelin in the fifth. Walter Rutt crossed the tape first in the sixth heat and Poulain and Hourlier qualified in the last two heats. The list of qualifants is a very formidable one and assures a strong battle in the semi-final and final heats.

Thuau, by his knack of a quick jump and getaway, won the match race with Broka. The first heat was won by Vanoni's partner in last year's French six day race, who got home three feet in front of Broka. The last named won the second heat by about the same distance and Thuau took the deciding race.

Lombret won the miss and out race after all but Labrousse, Libeaud, Thuau and himself had been eliminated. Bruni, Dusot, Parent, and Verbist qualified to ride in the Prix Tom Linton the following Sunday.



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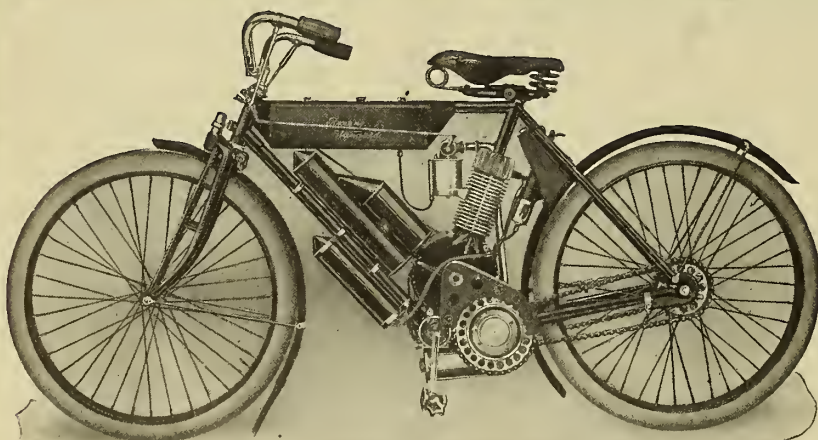
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SAND CYCLING AMONG MOORS

Experiences of Globe Trotter Holt in Attempting a Moroccan Excursion—
Incidents of the Trip.

Tangier, Morocco.—Even at the risk of being thought "loco" by the natives, or of falling by the wayside, I started out one morning to ride (or carry) a bicycle to a native village a few miles from Tangier. Inasmuch as walking or riding a donkey

ish that I have picked up here in the last month, I managed to make the owner understand that I wished to temporarily relieve him of the danger of having such a looking machine about the premises. He was in some doubt as to its condition for use. So was I. As it hung upon a couple of nails high up on the wall of the printing office, it looked scarcely respectable. As it is not polite here to look a borrowed bicycle in the handle-bars, I of course praised the machine at the expense of my veracity. Examination showed that the

ferred. It took the whole morning to put the machine in order, and as the heat of the day is hardly the time to start upon any kind of a trip in Morocco, I had to postpone mine still another day.

Three days consumed in waiting and preparing (that is the average speed in Morocco), and early upon the morning of the fourth I set out. Just to be on the safe side, in case there was any walking to be done, I engaged a Moorish lad to come with me so that he might bring in the wheel if necessary. So we started, I on



SAND AND STILL MORE SAND

GRASS HUT AND PICKET'S HIVE

is the only visible means of getting from place to place here, I preferred to risk my bones to a wheel rather than a donkey. I would have saved time and labor had I walked. But more of that later.

The name of the village is Suani, pronounced Swanee, but there is no river there. Nevertheless, before I got back to Tangier, I had thought several times of a certain song which contains the words:

"All the world am sad and dreary
Everywhere I roam."

There was no particular reason (except bad luck) that I should have picked out Suani as a place to go, as there is nothing special there—a dozen or more grass houses looking a good deal like the scenery, and several hundred children and as many dogs. But I was obliged to go somewhere, and one place is as bad as another here.

My first difficulty lay in securing a bicycle. I found that the owner of the one I had used the week before had sent it to Gibraltar. He referred me to a friend, but he had sold his. Finally, after seeing almost everybody in Tangier, who knew what a bicycle was, I found one in the office of the local newspaper—a publication with the enphionous title "El-Moghreh al-Aska." The wheel was, or had been an American wheel. In the half breed Span-

application of a dust cloth in the right places would improve the looks of the machine wonderfully, while an air-pump and a little oil would benefit its operating qualities. A Moorish boy cleaned her up while we got out the office oil can and inflator. The inflation of the tire resulted in about separating it from the rim, the machine had dried out so thoroughly. The owner looked at the wheel awhile, then picked it up and placed in a receptacle of water, and stated that "she be all right in the morning." She was, as far as the chrunked rim was concerned, but other parts had suf-

the bicycle, which was creaking in a manner which indicated that its muscles had become soft from inactivity, the boy trotting along behind. He didn't exert himself to keep up with me; evidently being aware that he soon would not have to do so.

For about a mile I rode upon the fine, smooth beach road, formed by the sand; now and then dodging a heavily laden donkey or mule just in time to miss the driver's shout "Ba-lak." These donkeys have a way of covering both sides of a road at once. Just as I struck the point where I had to leave the beach and take to the hills I felt that my rear tire did not have the elasticity that it should have, and a glance at it showed that it was nearly flat. An hour with the tool kit, and then I was again ready to proceed.

I didn't try to ride through the sand for two reasons: it was of the variety that lets you sink into it five or six inches, and there was a lovely grade. I have never seen sand which was quite so fine grained as that. After each step it slid back into the footprint almost like water. About half way up the hill I concluded that this would be a good sample of road to show American bicyclists, so I set up my kodak and instructed my Moor in the mysteries



"I WAS BEYOND THE LINE OF SAFETY"

of pressing the bulb. As a rule they are afraid as death of a camera, but evidently this one thought that I was a crazy person (whom they greatly respect), or that he had a chance to bring down the curse of Allah upon an infidel by photographing him, but he did his work well, so his motives may go unquestioned. Just to my left, in the photograph, is the road which is the main thoroughfare from Tangier southwards. It is used by caravans of camels, and donkeys or mules, as well as by pedestrians. The Moor in the brown cloak, just reaching the top of the hill was likewise headed for the Suani.

For about a mile beyond the top of the hill, there was nothing but sand, sand, sand. It got into the chain of my wheel and ground dismally; it got into my Spanish shoes and rubbed gleefully about. I now realized why the Moors wear no shoes when they can help it. But there is an end to all things and bye and bye I reached a rise from where I could see the green hills. In the distance was the gray tip of Zinat, where Raisuli had his stronghold. At the foot of the second mound was a cone shaped grass hut and the white hive of a picket; I had reached the outer guard line about Tangier.

Another half mile brought me to a sort of path where the sand was just about deep enough to cover the racks. Here I essayed to ride a bit. It was possible, but not enjoyable and I was not sorry when,

after a mile, I reached the hills and was forced to dismount. Just at the foot of the hill, beside a stone bridge, were the two tents of the guards. Putting the mounted picket into good humor by offer-



TYPICAL ARAB HUT AND WELL

ing to exchange my wheel for his horse, I managed to photograph him. He of course wanted to know where I was going as I was beyond the line of safety, and I explained by pointing to the barely discernable grass huts of the Suani. A few copper coins procured me permission to proceed.

It is not necessary to go into detail as regards the climbing of the two hills; the bicycle was not active in it. I was reminded of a certain little (?) bicycle jour-

ney around the head of loch Katrine, in Scotland, last summer. But I finally reached the village. I recollected then that a certain guide that I had employed upon several occasions lived in the Suani and that he had invited me to his home and a treat of Moorish tea served Moorish style. I concluded to hunt him up, and the boy's services now came in handy for the first time. We found his home; a typical Arab house or hut, with a well in front of it. Telling my boy to take the wheel, and break his neck upon it if he wished (and he apparently wished to attempt it), I sat down upon the well to rest and smoke, and reflect upon the pleasure of bicycling in Morocco. And I still had the trip home.

GEO E. HOLT.

Sweezy Heads Marysville Motorcyclists.

Although Marysville, Cal., does not figure very largely on the map, there evidently is a lot of motorcycle enthusiasm there, as the riders have formed the Marysville Motorcycle Club, and will endeavor to hold a motorcycle race in connection with the town's Fourth of July celebration. The officers of the new club are: President, R. D. Sweezy; vice-president, Clyde Taylor; treasurer, Clarence Wallace; secretary, Charles Heyl; captain and motor mechanic, F. R. Perry; committee on race meets, Lester Merrick, of Sacramento; Charles Phelps, of Colusa, and Everett A. Barr, at large.

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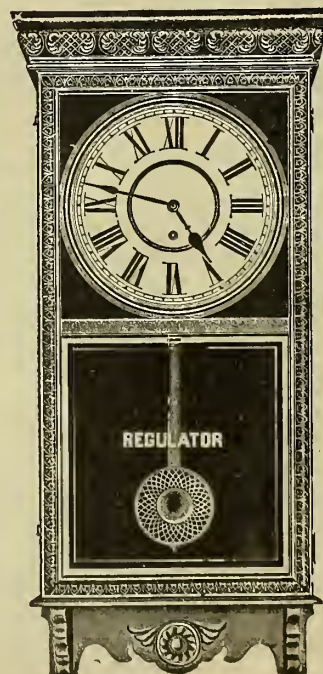
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Bridgeport, Ct., December 12, 1906.

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Gentlemen:—I have just returned from a 3,000 mile bicycle trip from Bridgeport to Chicago and return, under the auspices of the Bridgeport Post. When I started out from Bridgeport Sept. 26th, my wheel was equipped with a coaster brake. This brake caused me so much trouble that I decided after six days' use to take it off and ride without a coaster brake. A bicycle manufacturer induced me to try the Morrow brake and I will say you ought to call your coaster brake the Morrow Never Fail. I have ridden under the worst of weather conditions and on one occasion was 38 hours continuous in the saddle only stopping for meals. I am confident I could not have stood the strain without a brake. During the 3,000 mile trip my brake was only taken apart once and then not because it was necessary, but to satisfy the curiosity of those present. They expressed their astonishment over the condition of the brake after such hard use. Last night here in Bridgeport some of my friends had an argument about the Morrow brake's coasting ability. We tried it and it might interest you to know that the brake at one swing kept coasting seven minutes and fifty-four seconds. The Morrow Coaster Brake has never at any time refused to respond immediately, and it is to-day in such good shape that it would stand another similar trip without any repairs at all. I think I can say I know a little about wheels and equipment and I have tried almost all the different makes of brakes. To-day my experiences assure me the Morrow is the most durable and reliable brake on the market. Every rider ought to try it and he would never use anything but the Morrow.

With most sincere wishes for the success of the splendid Morrow Brake,
I remain,

Yours truly,

AXEL JOHNSON,

Reporter Bridgeport Post,

Member C. R. C. A.

Cork Pullers Brew a Teapot Tempest.

The Prospect Park Cork Pullers are sad—so sad that they are real mad and threatening they "wont play." The Cork Pullers really were never born—they just grew and ever since the N. C. A. applied its corkscrew and professionalized a number of the Prospect Park cop dodgers the demand for towels and witchhazel in Brooklyn has been quite brisk. To show how mad they are the Pulled Corks have resolved that they wont recognize N. C. A. control of road racing. They have a style of control which they believe is the "real thing." Accordingly delegations of the aggrieved riders have been visiting the other New York clubs and detailing the vices of the N. C. A. and the virtues of themselves and their ideas of road race control, although these ideas are rather vague and the talk that accompanies them indicates that someone is dreadfully "sore."

They would organize a little association of their own which will provide witch hazel without extra charge. The tempest in a teapot would be funny if the men who have brewed it did not take themselves seriously, and if A. G. Armstrong was not among the number. Armstrong is president of the Century Road Club of America, but some of the members of that body are anxious that it be known that he is representing only himself and the Corks Pulled in this affair.

Why Armory Races are Scarce.

"Instead of asking 'Why don't the armory promoters include more open bicycle races in their games so that outsiders can have a chance to ride during the winter months?' why do not the 'outsiders' ride in the races when they are open?" queried a flat floor rider the other day.

"Only recently an armory race was made open to any riders registered with the National Cycling Association, and word was sent to all the clubs in New York City, apprising them of the fact. Well, I would be ashamed to tell you how many entries were received. If the riders who grumble because there are not more flat floor races would enter when such races are listed, the promoters of the games

would wake up to the fact that an exciting bicycle race is the biggest drawing card. As the matter now stands, the promoters of the games take it for granted that nobody is riding a bicycle any more, because when they do offer such a race there is no one to ride in it."

Johnson to Start South Tuesday.

Axel Johnson, the Bridgeport member of the Century Road Club Association, who last winter made a notable trip to Chicago and return in the interest of a paper, earning his way en route, will start on his Southern trip next week. He will leave New York City Tuesday, with Philadelphia as his first objective point. As told in the *Bicycling World* some time ago, Johnson will travel south to Norfolk, Va., and thence to Atlanta, Ga. From there he will go to Columbus, Ohio, returning to New York City. His trip will cover 3,000 miles and this hardy "plugger" expects to earn his way as he rides. The *Bicycling World* will follow his trail and recount his experiences.

Novices Charged Into Spectators.

H. R. Brown, riding from scratch, won the one mile handicap at the 23d Regiment games in Brooklyn, last Saturday night, 16th inst. H. R. Reynolds, from the 20-yard mark finished second and third place went to C. L. Cook, who had previously won the novice race; Cook had 30 yards lead. The time was 2:35. Some little excitement was occasioned in the one mile novice when three of the riders went off at a tangent into the crowd. The race was won by C. L. Cook with F. R. Eubank second and J. C. Wood third. Time, 3:22½.

One License for Entire Kingdom.

The National Cyclists' Union, the Scottish Cyclists' Union and the Irish Cyclists' Association have now decided to institute a single licensing scheme to cover England, Scotland and Ireland, and to delete the five miles British Empire championship, substituting one of ten miles. The British Empire championships will this year probably be allotted to Liverpool.

Two Edgcombes Claim the Title.

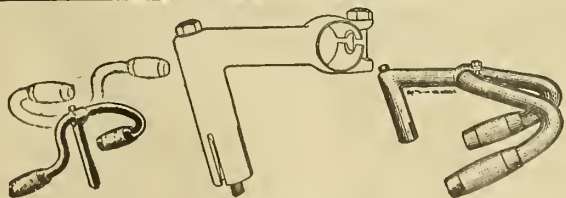
There are two organizations in New York City that lay claim to the name of Edgcombe Wheelmen and the fact has caused some confusion recently. Some time ago the Edgcombe Wheelmen "split" and the members who seceded immediately incorporated as the "Edgcombe Wheelmen." They elected Samuel Morrison president, Reese Hughes vice-president, Fred E. Mommer financial secretary, and Paul Bourget recording secretary. It was a strategic move and gives them the right to use the club name. B. C. Glemba, proprietor of the Edgcombe Cycle Co., New York City, who was one of the founders of the original Edgcombe Wheelmen, says that he does not intend to give up the name "Edgcombe," and that his club will be known as the "Edgcombe Wheelmen of New York." Its officers are: President, John Bellew; vice-president, Emile Koster; treasurer, Bernhard Glemba; secretary, O. C. Brandes; financial secretary, Henry Vanden Dries.

Junior Championship a Huge Event.

In addition to the "Tout-Petits" races, in France, that have been attracting three or more hundred boys, as mentioned in the *Bicycling World* some time ago, it appears that the Union Velocipedique of France provides an annual championship for boys under 17 years of age. It is termed "Les Championnats des Tout-Petits," and is scheduled to be run to-morrow, the 24th. When the last French papers arrived, the list of entries had reached 400, and had not then closed. It is concluded that when the National Cycling Association's "Junior Short Distance Amateur Championships" become established a corresponding amount of interest is likely to be created in this country.

Newtons to Celebrate Jubilee.

The Newton (Mass.) Bicycle Club, organized April 1, 1882, will celebrate its silver jubilee on April 1, next. The club has never disbanded, never reorganized, and never ceased to hold regular meetings. The April meeting will be its 187th meeting.



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